EVALUATE THE EFFECTIVENESS OF COMPUTER ASSISTED INSTRUCTION ON KNOWLEDGE AND KNOWLEDGE ON PRACTICE REGARDING SELECTED ASPECTS OF INTEGRATED MANAGEMENT OF NEONATAL AND CHILDHOOD ILLNESS (IMNCI GUIDELINES) AMONG MOTHERS OF UNDER FIVE CHILDREN IN SELECTED RURAL AREA AT TANJORE DISTRICT

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A DISSERTATION SUBMITTED TO
THE TAMILNADU DR. M. G. R. MEDICAL UNIVERSITY, CHENNAI,
IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE
DEGREE OF MASTER OF SCIENCE IN NURSING

(CHILD HEALTH NURSING)

APRIL- 2012

CERTIFICATE

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ACKNOWLEDGEMENT

"**Apart from God every activity is merely a passing whiff of insignificance"**

With immense joy and gratitude I raise my heart in praise and sincere gratitude to "**God Almighty"** for his manifold graces and blessings showered on me all throughout this study.

It is my privilege to be a part of this institution and to thank **Mrs. Mariyam UL Asia,** Chairman, Sara Nursing College, Manakkadavu, Dharapuram, for allowing me to undertake the study and avail the facilities in this institution.

It is a moment of great pleasure to place on record my deep sense of gratitude and indebtedness to **Mrs. Benazir MBA.,** Vice-Chairman, Sara Nursing College, Dharapuram for providing necessary facilities to conduct this study.

I am very much thankful and grateful to my research guide **Prof. M. Kandasamy, M.Sc (N)., (Ph.D).,** Principal, Sara Nursing College, Dharapuram for his periodic assessment of my work, valuable suggestion and exemplary guidance throughout this dissertation.

I am indeed with great pleasure and privilege to work and to take up this dissertation under the scholarly guidance of my Clinical Speciality Guide **Mrs. E. V. Jasmin Guilda Star M.Sc (N).,** Assistant Professor of Child Health Nursing, Sara Nursing College, Dharapuram who has been a constant source of inspiration and encouragement in completing this dissertation.

I am immensely thankful to my medical guide **Dr.D. S. Arivanand, M.B.B.S., M.D (Ped).,** Maharishi Nursing Home, Dharapuram who gave suggestions for my study.

No research project is complete without statistics. Hence my deep thanks to **Mr. S. Senthil Kumar**, Lecturer in Statistics, G. V. N. Hospital, Trichy District, for his constructive suggestions regarding statistical analysis.

My sincere thanks to **Mrs. Mary Sumathi M.Sc (N)., Mrs. Gomathi M.Sc(N)., Mrs. Usha M.Sc (N)., Mrs. Nisha Wilson M.Sc (N)., Mrs. Manjula M.Sc (N)., Mrs. Leema Rose M.Sc (N).,** for giving me motivation during the course of my study.

I express my sincere thanks to **Prof. Mallika Rajadurai, M.Sc (N)., (Ph.D)., Mrs.Victorial Selvakumari.C, M.Sc (N),** our former principal, **Prof. Mr. Victor Devasirvadam, MSc (N)., (Ph.D).,** our former Research Co-ordinator, and my former Clinical Speciality Guide **Mrs. J. Kavitha, M.Sc (N).,** for their guidance throughout the study.

My sincere thanks to **Prof. S. Sumithra M.Sc.,(N)., (Ph.D)., Prof. Kamalam M.Sc. (N)., (Ph.D)., and Prof. Vani chitra Devi M.Sc(N).,** who gave valuable suggestions and opinions for my study.

My sincere thanks goes to **Miss.Neela M.Sc., B.Ed.,** President of Manakkadu village for granting permission and guidance to conduct my research study smoothly in their esteemed village.

My sincere thanks to **Mr. C. Vijaya Kumar, M.Sc., MLIS, M.Phil.,** Librarian, and **Mr. Shakthivel B.Lit., CLISC** Asst. Librarian, Sara Nursing college, for their timely support through out my study.

My sincere thanks to **Mr**. **Senthil Kumar, M.A., M.Ed., M.Phil and Mr.S. Saminathan Selvaraj MA, M.Ed, M.Phil.,** for his timely work in Tamil and English editing my research contend successfully.

My sincere thanks to all Staff of **Vijay Xerox,** Dharapuram, for their full co-operation to complete this research project.

I wish to thank all the good hearts and the **research subjects** who have participated, whole heartedly in the study and for their valuable co -operation which made the study effective.

Most importantly, none of this would have been possible without the love and patience and support of my beloved parents **Mr.V.Naguran, and Mrs.N.Mangalam,** My loving sister **V.N.Shobana, M.E**., My Loving brother **Mr.V.N. Sakthival Pandiyan, B.E.,** My friend **V.Vidhya B.S.c(N**) for their great blessings, affections, encouragement and support and help to me in the successful completion of my thesis.

It is my pleasure and privilege to express my deep sense of gratitude and thanks to all those who have contributed to the successful completion of this endeavor. I wish to express my deep sense of gratitude to all my friends and classmates for their support, suggestions and encouragement during the course of my study. My special thanks to **N.V.Brinda and P. Puela Catherin.**

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ABSTRACT

A Study to evaluate the effectiveness of Computer Assisted Instruction on knowledge and knowledge on practice regarding selected aspects of Integrated Management Of Neonatal And Childhood illness (IMNCI guidelines) among mothers of under five children in selected rural area at Tanjore district.

The present study was conducted in Manakkadu at Tanjore district. Pre-experimental one group pretest posttest design was used for this study. Permission was obtained from the president of Manakkadu village and data collection was done over the period of 4 weeks. The investigator had selected 60 mothers of underfive children through convenience sampling technique. Oral consent was obtained. Then the investigator did a pretest on the level of knowledge and knowledge on practice. Structured knowledge questionnaire was used for assessing the level of knowledge and check list was used for assessing the level of knowledge on practice. Then computer Assisted Instruction administered to the subjects regarding selected aspects of IMNCI guidelines which includes assessment, classification, treatment and counseling of pneumonia, anaemia, diarrhea, malnutrition, immunization for 30mts duration. Then the post test level of knowledge and knowledge on practice of the subject was assessed after 15days with the help of same questionnaire.

There was a significant difference ($P< 0.05$) between the pre test mean score 11.63(±3.39) and post test score of knowledge 20.4 (±2.23) and pretest knowledge on practice mean score 7.15 (±1.35) and post test mean score 8.81 (± 12.09). There was a positive correlation found between the post test level of knowledge score and the post test level of knowledge on practice score ($r=0.71$).

There was a significant association found ($P< 0.05$) between the level of knowledge and knowledge on practice with their occupational status of the mother. It is concluded that Educational programme helps to change the knowledge and knowledge on practice regarding selected aspects IMNCI guidelines among mothers of under five children.

CHAPTER-I

INTRODUCTION

“India’s future lies with children and its economy cannot continue to grow without them. Investment in child care is the best investment any country can make’’

-Murzi

A child is an important assert to its family. Only a healthy child can become a healthy citizen and make a healthy nation. Child is a precious gift which has lot of potential and they are the best resources for the nation. In India more than 400 million children are there and they are more prone to get diseases.

(**James, 2004)**

Each Year, more than eleven million children die from the effects of disease and inadequate nutrition. In some countries, more than one in five children die before they reach their fifth birthday. Many of the children who do survive are unable to grow and develop to their full potential.

(**Anjaiah,2004)**

Seven out of ten childhood deaths in developing countries can be attributed to just five main causes **1**.**Pneumonia**- children all over the world suffer from frequent cough and cold in developing countries and these are often associated with life threatening pneumonia, the leading cause of death in children under five. **2.Diarrhea**-diarrhea is extremely common and the life - threatening disease, because of the dehydration and malnutrition. If it goes untreated diarrhea is the second most common cause of death in children. **3**. **Measles** -vaccines have made this disease rare in the industrialized world. Its occurrence in developing countries has also been rapidly reduced but it still claims the lives of 800,000 children each year. **4. Malaria** -most of the death due to this widespread disease occur among African children **5. Malnutrition**-Ministry of Health and family welfare says that malnutrition increases the risk of death is associated with over 2/3 of the death. All five of these conditions can be treated or prevented. Despite this fact, 23000 children die from each

day. These serious threats to children health have been difficult to control for a number of reasons. Inadequate living conditions including poor water supply, hygiene and overcrowding promote the rapid spread of disease.

(**WHO, 2000)**

Over the last 3 decades annual number of death among children less than 5 years of age has decreased by almost a third. However this reduction has not been equally distributed throughout the world. Projection based on the 1996 analysis, indicates that common childhood illnesses will continue to be major contributes to child deaths through the year 2020, unless greater efforts are made to control them. This assumption makes a strong case as introducing new strategy to reduce child mortality and child health and development**.**

(UNICEF, 2009)

Integrated management like universal immunization, essential newborn care and exclusive breast feeding were implemented during first 6 months of life. Oral rehydration therapy for diarrheal management, timely appropriate use of antibiotics in pneumonia, diet regarding malnutrition, immunization for preventable disease have proven to be effective in vulnerable children. IMNCI includes counseling of caretakers about home care. Care takers are actively involved in the treatment of children.

(**Ghai , 2007)**

The IMNCI strategy includes both preventive and curative intervention that aim to improve practices in health facilities, the health system and at home. The strategy include three main components, **1**.improvements in the case management skills of health staff through the provision of locally adopted guidelines **2**. improvement in the overall health system required for effective management of neonatal and childhood illness, **3**.improvement of family and community practices through counseling of families and creating awareness(IEC) among communities.

(Deshmukh P.R.,2009)

The IMNCI guidelines target children less than 5years, the age group that bars the highest burden of deaths are ARI, Diarrhea, malaria, measles. IMNCI also

promotes adjustment of interventions to the capacity of the health system and active involvement of family members and community in the health process.

(**Ministry of Health & family welfare, 2009)**

The IMNCI guidelines are based on the following principles like all sick young infants up to 2months of age must be assessed for possible bacterial infection diarrhea, and all sick children aged 2months up to 5 years must be examined for general danger sign, diarrhea, malnutrition, immunization status other potential problems.

(Pee Vee , 2007)

An essential component of the IMNCI guidelines is the counseling of care taker about home care, including counseling about feeding, diarrheal management, immunization and follow up. The main objectives of the strategy are to reduce death, frequency, severity of illness, disability and continues to improve the growth and development of underfive children.

(**Stein, 2006)**

Ask and listen to find out what's the infants problems are, what the mother is already doing for infant, praise the mother for what she has done well and advice her how to care for her infant at home.

(**Piyush Gupta, 2008)**

Family members especially the mothers have an important role in preventive aspects and health promotion. Pediatric nurses are in a important position to identify the mothers knowledge, attitudes and practice toward these challenging problems. This will enable the nurse to plan with specialized service to help the mother to understand about common childhood disease that will make a significant difference in the prevalence of the diseases affecting the health of the children.

NEED FOR THE STUDY

9.7million children dying globally before the age of five years, India accounts for 2.1 million of them. In India 300 per 1000 children die due to pneumonia in the age group 2months to 2years. India carries the largest burden of disease and deaths because of pneumonia, accounting for 43 million cases and 0.4million deaths. The median incidence of pneumonia in India is estimated to be 0.37 episodes per child per year. A child dies every 15 seconds from pneumonia.

(UNICEF, 2011)

Diarrhea is a major cause of mortality among the under-five children in India and is considered an important public health problem. The economic burden on health services caused due to diarrheal diseases is immense, as up to one-third of total pediatric admissions are due to diarrheal diseases. According to their estimates, the crude death rate due to diarrhea in rural India is 9.3 per 1,000 populations. The total number of deaths due to diarrhea in the age group of 0–6 years accounted for 22% of total rural death.

(Glob Health action, 2011)

Globally 1.62 billion people are anaemic, with the highest prevalence of anemia (47.4%) among preschool-aged children. Of these 293million children, 89million children in India. Anemia was especially prevalent among rural children in majority of India's population (72.2%) is rural. Hookworm infestation accounts for about 42.8%.

(WHO, 2010)

Globally 10-11 million underfive deaths each year out of which 60% are due to malnutrition .In India, 2.5 million under five children's die each year. National Nutrition Monitoring Bureau of Orissa stated that (65.9%) are undernourished out of which 25% are severely malnourished.

(Bijayalaskhmi Dash, 2011)

India account for 35 % of all neonatal deaths in the world, as estimated 43 neonatal deaths occur per 1000 live births .Most neonatal deaths take place at home, indicating the problem in the health care access. The delay in access to health care

involves problems in disease recognition, decision making and transport to health care services. **Integrated Management of Neonatal and Childhood Illness** (country specific adaptation of **IMCI** which envisages newborn care component) emphasizes mothers, community leaders and health workers to identify danger signs among newborns for early referral to appropriate health care provider/ facility. Early identification with prompt and appropriate referral services as backbone of the programme aiming at reduction in neonatal mortality.

Awasthi, (2008). conducted a study on symptom-specific care-seeking behavior for sick neonates. A prospective follow up study of consecutive 326 neonates delivered at an RCH in Luknow, in which 51.2% mothers reported atleast one symptom of illness like sunken eyes, bulged fontanel, chest indrawing and fast breathing. Almost half of the neonates had an IMNCI danger signs, of which one fifth did not receive medical care. Therefore, there is an need to introduce the IMNCI programme.

. **Dongre AR, and Garg, BS., (2008)** A cross sectional study was undertaken in Primary Health Centre of Wardha district regarding perceptions and health care seeking about newborn danger sign. 1675 mothers were interviewed by house-to house visits. Among them 67.2% reported atleast one symptom, but 46.1% of sick babies doesn't receive any treatment. The reasons for not taking actions even in presence of danger sings/symptoms were ignorance of parents, lack of money, faith in supernatural causes, and absence of responsible person at home. The present study found gap between knowledge and their health seeking behavior for sick newborn. Comprehensive intervention strategies are required to change the behavior of caregivers in rural area.

The main component of IMNCI is promoting healthy behaviors such as breastfeeding illness, recognition, early health seeking etc. IEC package helps to create awareness among caretakers. Counseling of caregivers and families is an essential thing recognizing the sick child and guide the mothers to seek health facilities/health worker. Home visit helps to identify sickness and improves newborn and child care practices. Mothers are the primary caretakers of children. They should

have the knowledge about preventive measures, so that they can protect the child from childhood illness.

(Smriti Arora, 2009)

The investigator therefore felt the need to find out the mothers knowledge and practice regarding common childhood illness based on IMNCI guidelines which would help them to recognize the severity of the illness and make right decisions at the right time. In all probability these women would share their knowledge to their friends, neighbors thus regarding childhood illness.

Statement of the problem

A Study to evaluate the effectiveness of Computer Assisted Instruction on knowledge and knowledge on practice regarding selected aspects of Integrated Management Of Neonatal And Childhood illness (IMNCI guidelines) among mothers of under five children in selected rural area at Tanjore district.

Objectives of the study

The objectives are

1. To assess the level of knowledge regarding selected aspects of IMNCI guidelines among mothers of under five children before and after Computer Assisted Instruction.
2. To assess the level of knowledge on practice regarding selected aspects of IMNCI guidelines among mothers of under five children before and after Computer Assisted Instruction.
3. To evaluate the effectiveness of Computer Assisted Instruction regarding selected aspects of IMNCI guidelines among mothers of under five children.
4. To correlate the post test level of knowledge score with the level of knowledge on practice score regarding selected aspects of IMNCI guidelines among mothers of under five children.
5. To associate the post test level of knowledge regarding selected aspects of IMNCI guidelines among mothers of under five children with selected demographic variables.

6. To associate the post test level of knowledge on practice regarding selected aspects of IMNCI guidelines among mothers of under five children with selected demographic variables.

Hypothesis

H_1: There will be a significant difference in the level of knowledge regarding selected aspects of IMNCI guidelines among mothers of under five children before and after giving Computer Assisted Instruction at $P<0.05$ level of significance.

H_2: There will be a significant difference in the level of knowledge on practice regarding selected aspects of IMNCI guidelines among mothers of under five children before and after giving Computer Assisted Instruction at $P< 0.05$ level of significance.

H_3: There will be a significant correlation between the post test level of knowledge score and level of knowledge on practice score regarding selected aspects of IMNCI guidelines among mothers of under five children.

H_4: There will be a significant association between the post test level of knowledge regarding selected aspects of IMNCI guidelines among mothers of under five children and selected demographic variables at $P<0.05$ level of significance.

H_5: There will be a significant association between the post test level of knowledge on practice regarding selected aspects of IMNCI guidelines among mothers of under five children and selected demographic variables at $P<0.05$ level of significance.

Operational definitions

Effectiveness

It refers to the statistically significant change in the knowledge and knowledge on practice regarding selected aspects of IMNCI guidelines among mothers of under five children after the administration of Computer Assisted Instruction.

Knowledge

It refers to the verbal or written response of mothers of under five children regarding selected aspects of IMNCI guidelines as measured by structured knowledge questionnaire.

Knowledge on practice

It is the level of performance of underfive mothers expressed verbally or written form regarding selected aspects of IMNCI guidelines as evaluated by check list.

IMNCI guidelines

In this study the IMNCI guidelines refers to set of instructions regarding assessment, classification, treatment and counseling of pneumonia, anemia, diarrhea, malnutrition and immunization at home level.

Mothers of underfive children

Mothers who are all having the children between the age of 2months- 5years.

Computer Assisted Instruction

It refers to planned teaching programme regarding the selected aspects of IMNCI guidelines which is imparted through the computer as teaching aid.

Assumption

- Computer Assisted Instruction is an economical and efficient way of meeting the learning needs.
- Mothers may have insufficient knowledge regarding IMNCI guidelines
- Computer Assisted Instruction will enhance the knowledge and knowledge on practice of under five mothers on IMNCI guidelines.
- IMNCI guidelines useful to manage the sick child in the home itself.

Delimitation

- The data collection period was limited to four weeks.
- The findings of the study was limited only to under five mothers who are all residing at Manakkadu village

Conceptual framework

Conceptual framework is the conceptual underpinning of the study. It is a group of concepts and a set of propositions that spell out the relationship between them.

Conceptual framework is interrelated concepts that are assembled together in some rational scheme by virtue of their relevance to common theme the purpose is to make research meaningful and generalize. **(Polit and Hungler, 2000)**

A conceptual framework is used in research to outline possible courses of action or to present a preferred approach to a system analysis project. The framework is built from a set of concepts linked to a planned or existing system of methods behaviors, functions, relationships, and objects. A conceptual framework might, in computing terms, be thought of as a rational model.

The study was aimed at assessing the knowledge and knowledge on practice on IMNCI guidelines before and after computer assisted instruction .The conceptual Framework for this study was derived from the concepts of "**Stuffle Beam Model**" .It is a comprehensive framework for evaluating programmes.

The model includes

1. Context evaluation
2. Input evaluation
3. Process evaluation
4. Product evaluation

Context evaluation

Highlights the environment in which the proposed programme exists describes the plan for decisions and collection of data apart from providing rationale for determination of objectives. In this study it refers to Age, Religion, Education, Occupation of the mother, Family income, Type of family, Number of under five children, Baby care advice is sought by, Frequency usage of health care services and Information regarding IMNCI guidelines.

Input evaluation

It serves as a basis for structuring decision and evaluate different approach. In this study it refers to assessment of the level of knowledge and knowledge on practice regarding selected aspects of IMNCI guidelines among mothers of under five children.

Process evaluation

Process evaluation means Implementation of plan. In this it refers to administration of computer assisted instruction regarding selected aspects of IMNCI guidelines like assessment, classification, treatment, counseling of pneumonia, diarrhea, anaemia, malnutrition and immunization.

Product evaluation

It refers to energy, information or matter that is transferred to environment and enables recycling of decision as it relates to goals and objectives of input information and process information. In this study it refers to evaluation of post test level of knowledge and knowledge on practice of mothers of under five children regarding selected aspects of IMNCI guidelines.

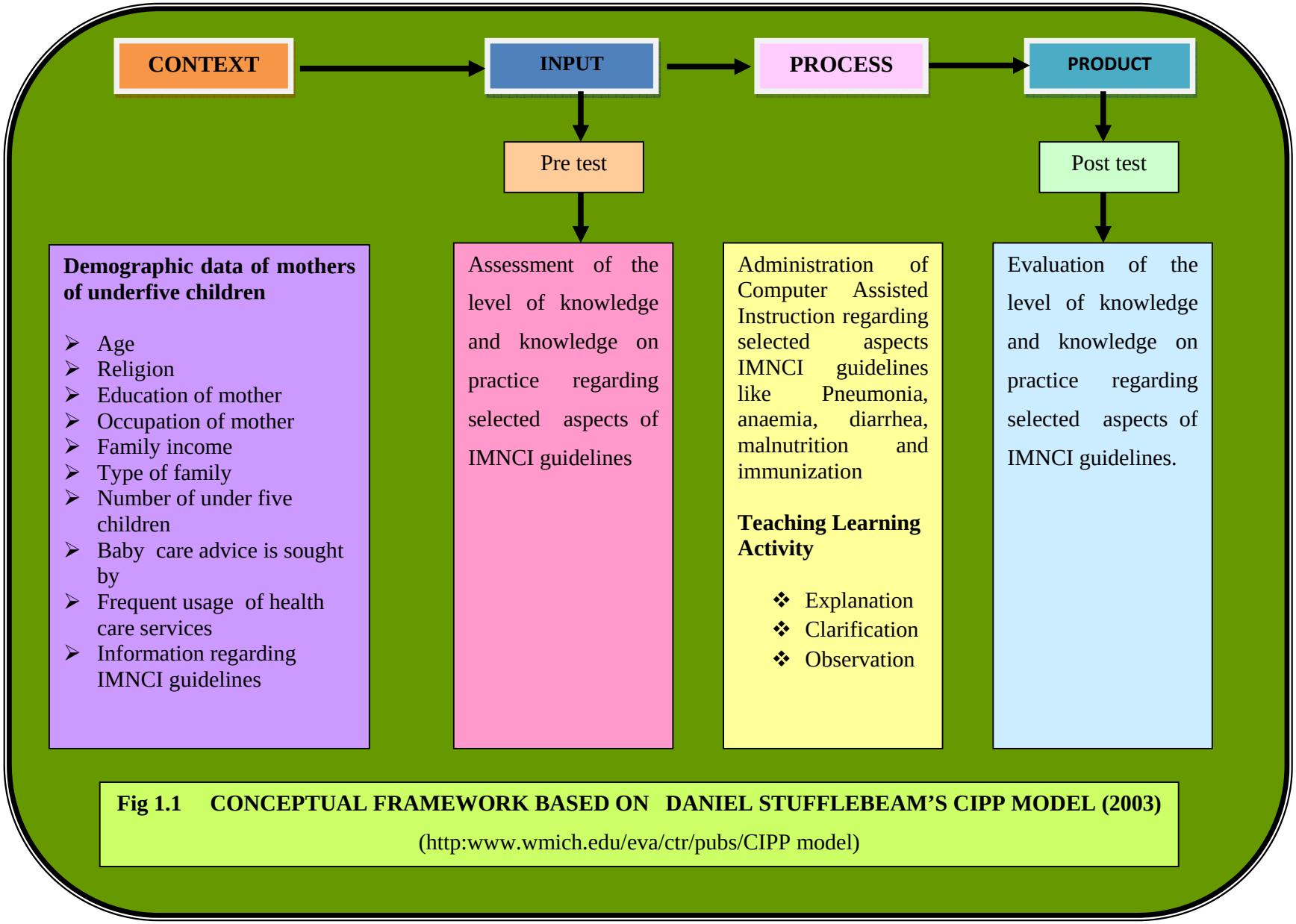

Fig 1.1 CONCEPTUAL FRAMEWORK BASED ON DANIEL STUFFLEBEAM'S CIPP MODEL (2003)

(http:www.wmich.edu/eva/ctr/pubs/CIPP model)

CHAPTER -II

REVIEW OF LITERATURE

Review of literature is a systemic identification, location, scrutiny and summary of written materials that contain information on research problems.

A brief summary of previous research and writings of recognized experts provides evidences that researcher is familiar with what is still unknown, untested. The literature review was based on an extensive survey of books, journals, international nursing studies and internet search**. (Best, 2003)**

1. Literature related to IMNCI guidelines.
2. Literature related to knowledge and perception of pneumonia among mothers.
3. Literature related to management of anaemia.
4. Literature related to management of diarrhea.
5. Literature related to knowledge and practice of malnutrition among mothers.
6. Literature related to Immunization.
7. Literature related to Structured Teaching Programme.

Studies related to IMNCI guidelines

Sinhababu A, Mukhopadhyay, Panja TK,Saren, Mandal NK, et.al., (2010) conducted a study on infant and young child feeding practices in Bankura district India. In total, 647 children aged less than 2 years using the indicators of the (IMNCI) was taken for this study. The proportions of infants with early initiation of breastfeeding (13.6%) and exclusive breast feeding under 6 months (57.1%) and infants who received complementary feeding at the of 6-8 months (55.7%) were low. Appropriate feeding as per the IMNCI protocol was significantly less among infants aged 6-11 months (15.2%) and children aged 12-23 months (8.7%) compared to infants aged less than 6 months (57.1%). The main problem revealed from the study were late initiation of breastfeeding and inappropriate complementary feeding practices.

Thompson. M.E , and Harutyunyan, (2009). conducted a study on knowledge of mother on maternal and child health status in Armenian .IMNCI training were implemented in the region of 387 community health workers, approximately 5000 caretakers of under five children were counseled on the key nutrition and health practices. A pre –post independent sample design was used in the study. About 300 mothers were interviewed and they found that 35% were not aware about child care practices. The campaign reacted its target: at follow up, 67% had seen mass media, 82% had received IMNCI informational booklet and 30% had seen other materials. The results was exclusive breastfeeding increased to about 31.4% maternal knowledge of child illness signs increased to about 30% knowledge of HIV increased to about28.5% and physician attended deliveries increased to about 15%. This evaluation documented the significant and substantial impact of the community IMNCI program on both knowledge and practice.

Athumanijuma, (2007). conducted a study on Knowledge, attitudes and practices of mothers on symptoms and signs of integrated management of Childhood Illnesses (IMCI) strategy at Buguruni. Random sampling procedure was used to obtain 336 mothers. The implementation of IMCI programmes in health facilities has improved health seeking for childhood diseases.

Edward A,Ernst P,Taylor C., Becker S., Mazive, **et. Al., (2007).** examines the evidence in mortality reduction of children in a community based programme .Coverage for bed net use was 80% oral rehydration therapy for children with diarrhea was 94%.Evidence from this system indicated a 66% reduction in infant mortality, 62% reduction in underfive mortality. IMNCI model has demonstrated improvements in care seeking behaviors and utilization of health services.

Kelly JM, Rowe AK, Onikpo F,Lama M., Cokouits F,et.al (2007). conducted a study on caretakers recall of IMNCI counseling messages in USA.55 caretakers were randomly assigned to be interviewed either immediately after the consultation or a day later. Recall was assessed open ended questions. The mean percentage of recalled was 89.7% immediately after the consultation and 81.9% was one day later. This results support IMNCI recommendation that health workers should verify caretakers comprehension by asking caretakers to repeat counseling messages during consultation.

Neeru Gupta and Verma, (2007). made a survey in evaluation of diarrheal disease and ARI control programmes in New Delhi. A cross-sectional study of 1307 mothers were selected. Effective management at home level and health seeking behavior in case of appearance of danger signs are the key strategies in ARI and diarrheal disease. Where majority of episodes are self limiting and viral origin. IMNCI also envisages that family and community practices especially health care seeking behavior are to be improved to reduce childhood morbidity, mortality, cost of admission to hospital .Though aware of danger signs of ARI, care takers were still seeking medical advice for mild cases of ARI and doctors were prescribed drugs .Correct home based management e.g. use of ORS, continued feeding, etc.

Awasthi and Agarval, (2006). conducted a study on danger signs of neonatal illness perception of caregivers and health workers in northern India. Study participants were mothers, grandmothers, grandfathers, fathers, or nannies caring for infants younger than 6 months of age and recognized health care providers serving the area .Qualitative and quantitative research design was used in the study.70.5% reported home deliveries which is conducted by local untrained nurses and relatives. Most mothers initiated breastfeeding only on day 3.More than half of the caregivers recognized fever, weakness, irritability, vomiting slow breathing, diarrhea as danger sign in neonate. 79(39.5%) of caregivers had seen a sick neonate in the family in the past 2 years. Rational medicine were used for the treatment of bulging fontanel, chest in drawing, rapid breathing. There is no universal recognition of danger signs in neonates. There is need to give priority to implementing IMNCI and possible incorporation of continuous crying as an additional danger sign.

Ali M, Asefaw T,Byass P,Beyene H,Pedersen et. al., (2005). conducted a study on helping communities in reducing the childhood mortality-population based intervention trial. 4000 children less than 5years were selected .Regular 6monthly visits were made to document deaths among children. After the first year, communities in one district were educated about issues of good childcare and caring for sick children. While the other district received this information only after the trail period. The significant survival advantages were found for females, those with married parents, those whose nearest health facility was a health centre. Only 44% of parents or caregivers had sought health care before the child's death. WHO guidelines

for the Integrated Management of Neonatal and Childhood Illness strategies in local health facilities, appears to have significant reduction childhood mortality in these communities.

Cunha and Martines, (2005). conducted a study on mother's response to the recommendations of health workers (IMCI). We analyzed the care provided to 153 children who were recommended for a 2 or 5 day follow up visit. Children who did not return were visited and assessed at home. Adherence to follow –up was just over 50%, mostly because the condition had already resolved, but some children were still sick and needed intervention. Training on counseling on the recognition of danger signs and when to return for a follow –up visit must be reinforced.

Patwari, (2002). stated that (IMCI), a strategy fostering holistic approach to child health and development, is built upon successful experiences gained from effective child health interventions like immunization, oral rehydration therapy, management of acute respiratory tract infection and improved infant feeding. In the home setting, it promotes appropriate early home care and care seeking, improved nutrition and prevention, and correct implementation of prescribed care. IMCI has helped countries to revise and updates their child health polices, increase service utilization, improve quality of care and nutritional counseling, improve health systems and improved family and community practices.

Amarasiri de Silva MW, and Martines J., (2001). conducted a study on care- seeking practices of caretakers with child less than five years of age in rural district srilanka. Population of 2248 children in 60 villages of the five targeted diseases in the IMCI programme that was the focus of the study in which ARI (82%) and diarrhea (14.8) were Predominant. Although malnutrition was highly prevalent and it was not recognized by caretakers as an illness. Findings show that in 65% of illness episodes in children the caretakers sought outside care and treatment. Caretakers sought treatment from both private and public sectors.

Studies related to Pneumonia:

Narendera K., Arora, (2010). stated that on rational use of antibiotics for pneumonia. Management issues for pneumonia also include early diagnosis, availability of appropriate antibiotics, timely and appropriate referral, monitoring and follow-up. These components are addressed in the IMNCI ARI control programs are being implemented in India. Fast breathing and lower chest in drawing are sensitive signs to diagnose pneumonia and severe pneumonia, respectively in the community.

Eddy siswanto, (2007). conducted a study on Knowledge and perception of pneumonia disease among mothers of under five children. 140 mothers were selected and using structured questionnaire. The lack of knowledge among mothers about simple signs and symptoms, causes and factors related with pneumonia become important findings of this study. Community based public health education and training for health provider stated all levels about correct and applicable prevention and assessments of pneumonia and other dangerous diseases should be promoted to ensure better transfer knowledge, perception and health practices in the community.

Saini NK, (1992). conducted a study on knowledge and practices of mothers for devising a standard management plan. In all 304 mothers were interviewed. About 23% mothers recognized pneumonia by fast breathing and 11.2 % recognized severe pneumonia by chest indrawing. Only 1.3% mothers knew infective origin of ARI. Although most of them were convinced about continuation of breastfeeding, 70% of them were advising food restriction.

Literature related to anaemia

Onyemaobi GA, and Onimawo I.A, (2011). conducted a study on risk factors for Iron deficiency anaemia and prevalence of anaemia in under-five Children, and establish the relationship between worm infestation and iron. A total of four hundred (400) children aged 6-60months, selected by purposive sampling method. Weighed 3-day food records were used to analyze food and nutrient intake. Blood test for determination of hemoglobin, serum ferritin, packed cell volume, vitamin C, and presence of malaria parasites were obtained by vein puncture. Stool samples were collected to determine parasitic infestations. Using serum ferritin (SF) cut-off <12.mg/l (WHO, 1994*),* 48.8% were iron deficient, and 70.5% were anaemic

(Hb <105 g/l). There were varying degrees of anaemia in which 38.0% had mild anaemia, 31.8% were moderately anaemic and 0.8% was severely anaemic. Some (18%) were infected by worms, hook worm affected 7.8%, Ascaris ova found in 5.8%, and Taenia 3.8 %. Malaria parasites were found in 42.3% of the children. The most risk factor associated with anaemia in children (12-60 months old) was helminthic infections which was higher in rural areas. Vitamin c is necessary for iron absorption was below recommend allowance.

Ringsted FM, and samuelsen H., (2006). conducted a study on early home based management recognition of anaemia via general danger signs, in young children, in a malaria endemic community in north east Tanzania. Ethnographic longitudinal cohort field study for 14 months, with 63 caretakers and observational studies of infants social environment were combined with three hemoglobin screenings, supplemented with reports from mothers after health facility use. General danger signs reported by the mothers. For most danger sings, mothers twice as often took young children to traditional healers for treatment seeking. Pallor was more rarely recognized by mothers, or primary reason for treatment seeking. Mothers do recognize and respond to symptoms and danger sings related to development of anaemia. Mother's observations and actions should be reconsidered and integrated in management of childhood illness programme.

Skalicky, (2006). conducted a study to examine the association between child-level food insecurity and iron status in young children utilizing community-based data from the Children's Sentinel Nutrition Assessment Program (C-SNAP). A cross-sectional sample of caregivers of children < or =36 months of age utilizing emergency department (ED) services were interviewed between 6/96-5/01. Food insecure children were significantly more likely to have IDA compared to food secure children [Adjusted Odds Ratio = 2.4, 95% CI (1.1-5.2-), p = 0.02]. There was no association between child food insecurity and anemia without iron deficiency or iron deficiency without anemia. These findings suggest an association between child level food insecurity and iron deficiency anemia, a clinically important health indicator with known negative cognitive, behavioral and health consequences.

Malin, (2005). conducted a study on nutritional anaemia in the urban community area. One hundred and eighty-two children under 5 years of age in a slum area were investigated for anaemia in relation to nutritional status and dietary history. The prevalence of anaemia was 43% with morphology suggestive of iron deficiency in most cases. The prevalence was significantly greater among partially weaned children consuming a mixed diet of breast milk and solids (73 per cent) compared to those who were fully weaned (30%). The under 3 age group were more anaemic, thinner, and less accessible to health workers than children aged 3–5. They were also unlikely to be weaned before the age of 1 suggesting the need for a specific health programme directed at this age group.

Literature related to management Diarrhea

Meenakshi Bakshi M, Mehan I., (2010). conducted a study on situational analysis of key nutrition and health related household and community practices- the IMCI approach (Integrated Management of Childhood Illness) in Gujarat. One PHC (Primary Health Centre) was purposively selected. Data for knowledge, attitude and practices regarding 12 key family & community practices, nutrition & health services utilization was pre tested. While few mothers knew about ORS packets, none of them knew the correct method of preparation and only 17% of the children with diarrhea in the past 2 weeks were given ORS. Supplementary food was the most frequently used service followed by growth monitoring while other services like preventive health check up were not used at all. The study thus indicates an urgent need to impart appropriate nutrition health education using behavior change communication strategy.

Ekhiasur rahma, (2008). conducted a study on mother skills in preparing oral dehydration salt solution Tamilnadu. Totally 600 children were included in the study. The study findings only one third mothers were able to prepare the packed oral dehydration solution correctly.

Karshik chattopadhyay, (2008). conducted a study on awareness of ORS among mothers of under five children India. Analytical cross sectional study was conducted and 24 mothers were selected. 18(75%) mothers were aware of ORS. 12(66.67%) of them knew that boiled water cooled in a clean pot should be used for preparing ORS. Only 2(11.11%) mothers knew that one liter water should be added to

a ORS .Only 4(22.22%) mothers knew that ORS solution should be used with 24 hours of its preparation. Only 4(22.22%) mothers knew that the solution should be administered till a child drinks it after an episode of acute diarrhea and should be administered if the child refuses it. None of the association between age, education, occupation, economic status were found.

Othero DM, Orago AS, GroenewegenT, Kaseje DO, Otengah,et.al.,(2008). conducted a study on home management of diarrhea before seeking help from community health workers or health facilities among under five in a rural community (IMCI). A total of 927 mothers / caregivers of under five participated in the study. Diarrhea was found to contribute to 48% child mortality in this study was unclean water 524(55.4%), contaminated food was 508(54.9%) bad eye was 464(50.0%). More than 70% of the mothers decreased fluid intake during diarrhea episode. The mother perceived that wheat flow and rice water is an important treatment. 239(27.8%) of the children were reported not to have drunk any fluids at all. Based on the findings there is need to develop and implement interactive communication strategy for the health workers and mothers to address perception and misconception and facilitate positive change in the house hold practice.

Macdonald, (2007). conducted a study on Maternal understanding of diarrhea- related dehydration and its influence on ORS. One hundred mothers of children under the age of five years were surveyed .Only 38 (38%) of the mothers survey identify two or more correct signs of dehydration. Significant relationship was found between maternal knowledge of correct signs of dehydration and the use of ORS in home treatment (OR 3.36, 95% CI 1.24, 10.63). Resulting recommendations include improved health education programming for mothers of young children, as well as future programme evaluation and intervention studies.

Jocinlahtip, (1992). conducted a study on diarrhoeal disease morbidity and home treatment practice. In August 1992, interviews were conducted with 9711 caretakers, among 11,032 children aged under 5 years and examine the quality of home treatment practices among 958 children who had diarrhea in the previous 24 hours. The 2-week diarrheal incidence rate was 20.4%. 96.3% of lactating mothers continued to breast feed during their child's diarrhea episode. 69.8% of diarrhea cases

receiving solid or semi-solid foods before the illness received the same amount during the diarrhea episode. Only 24.4% of cases who received fluids other than breast milk before diarrhea received more fluids during diarrhea. 54.2% of all cases were given at least one drug during the diarrhea episode; more than 50% of these were given more than one drug. 17.6% received ORS and drugs. Only 5% received ORS alone. The continued breast feeding rate (i.e., any breast feeding in last 24 hours) was 78.2% among children aged 12-15 months and 48.9% among those aged 20-23 months.

Studies related to Malnutrition

Shubhada, (2009). conducted a study on Epidemiological study of malnutrition among under five children in selected rural area at India. Malnutrition is major contributory factor in majority of these childhood morbidities and mortalities. At present 65% under five children are under weight among them 47% were moderately malnutrition and 18 %severely malnourished (UNICEF 2006 State of Worlds children). Present study highlights magnitude of problem and some socioeconomic, demographic and environmental factors associated with malnutrition among under five children of rural area. Out of 652 under five children studied, 329 were malnourished. The prevalence of malnutrition was 50.46%.

Madhu, (2006). conducted a study on childhood illness and malnutrition in underfive children in drought affected desert. A total of 914 under five children (0-5 years) was examined for their childhood illness, malnutrition, dietary intake, and clinical signs of nutritional deficiency. Inadequate consumption of daily food, the children were suffering from PEM resulting in several childhood illness and also deficiency of calories and protein in diet. So adequate calories and proteins are necessary to underfive children.

Gupta MC, (1997). conducted a study on Relation of childhood malnutrition to parental education and mothers' nutrition related knowledge attitude practice. Study findings shows that severely malnourished children was (26), weight for age 55.27 +/- 3.17, were identified in a colony of predominantly Muslim urban slum dwellers of low economic status. An equal number of normally nourished **c**hildren matched for age, sex and per capita income were identified. Questions related to growth monitoring and breast feeding were not found to be important. No significant

association was found between mothers' knowledge, attitude and practice and educational level. The content areas of knowledge, attitudes and practices significantly associated with nutritional status pertain to nutritional requirements of children, nutritional value of foods, immunization, hygiene, oral rehydration and diarrhea.

Bhat Ia, (1995). conducted a study on the impact of maternal knowledge and practice on the nutritional status of infants. In India, 123 mothers of infants were selected. Mothers whose infants were well nourished had a higher level of breast feeding knowledge than did those whose infants were moderate to severely malnourished. Little difference in infant nutritional status existed between mothers who scored fair and those who scored poor, but among mothers of well nourished infants, those who scored well were more likely to be have infants of good nutritional status than those who did not score well. These findings show a decreasing trend between awareness and practice of breast feeding /infant weaning; suggesting that further improvement of health education is needed to reduce the lag between breast feeding awareness and practice.

Bern C, Zucker JR, Perkins BA, Otieno J, Oloo AJ, et.al., (1997). conducted a study on assessment of potential indicators for protein energy malnutrition in the alograthm for integrated management of childhood illness. Two classifications first one severe malnutrition, which requires immediate referral to hospital, and very low weight, which calls for feeding assessment, nutritional counseling and follow up. Children aged <2 years require feeding assessment and counseling as a preventive intervention. Bipedal edema indicating kwashiorkor and marasmus indicators visible severe muscle wasting from that 13% in Bolivia to 68% in Nepal. Key issues in every country include the capacity to provide counseling for many children and linkage to nutritional improvement programmes in the community.

Saito, (1992). conducted a study on maternal knowledge of malnutrition and health-care-seeking attitudes in rural South India. Thirty-four cases and 34 controls were selected from the population of approximately 97,000. The two groups showed a significant difference in nutrition-related knowledge of mild malnutrition (OR = 2.62, p = .05). No significant difference was apparent in health-care-seeking

attitudes. The results suggested that the gender of the child and socioeconomic factors were stronger risk factors for malnutrition than health-care availability and health-care-seeking attitudes. The father's occupation was a more accurate indicator for malnutrition than household income.

Studies related to Immunization

Misra, (2008). conducted a study on Measles related complications and the role of vitamin A supplementation. A cross sectional study was carried out during an outbreak of measles in India. A total population of 193,000 was covered by house to house visit and, the caregivers of total 1204 measles cases, including 214 cases with complications. Routine vitamin A supplementation and measles vaccination reduce the chances of complications amongst cases of measles. While, measles is frequently associated with complications in the Indian setting, there is a need of enhancing the efforts to improve the delivery of vitamin A supplementation and measles vaccine to the children in rural areas.

Madhavi J, and mankar, (2000). conducted a study on a role of Integrated Management of Childhood Illness (IMCI) strategy for changing child rearing practices at household and community level Wardha. It helps to determine the knowledge and practices regarding child immunization, breastfeeding, child caring practices and management of childhood illness at household level. On the basis of the present study it was concluded that the IMCI is useful for managing childhood illness at community level and household level and helps in improving the mother’s knowledge and practice about child nutrition and childhood illness.

Literature related Structured Teaching Programe

Bijayalaskhmi, (2011). conducted a study on Video Assisted Teaching regarding prevention of malnutrition among under fives on knowledge of mother. 60 mothers were selected through convenience sampling. Quasi experimental design was used in this study. Average 40.98% knowledge before implementation of module whereas its increased 69.43% after implementation. No significant association between mothers age, education, occupation.

Muthumari, (2010). conducted a study on effectiveness of Structured Teaching Programme on malnutrition among 60 mothers of under five children selected village at Kuthambakkam. The pretest posttest design was used in this study. Mean of 28.64 with SD 14.08 in the pretest score and the overall mean of 67.24 with SD 10.4 in the posttest score. The study concludes that the STP on malnutrition was effective in enhancing the knowledge among the mothers of underfive children.

Pravez, (2009). conducted a study on effects of educational programme on child care knowledge and behaviors of under five mothers regarding pneumonia. The samples were purposively assigned into both experimental and control group. Mother's knowledge was assessed through structured knowledge questionnaire. The results of this showed that after receiving education together with usual care of the study group had a higher knowledge and behaviors score than that of the control group who's received only medical care.

Bijapu, (2010). conducted a study an effectiveness of planned teaching programme on prevention of pneumonia among mothers of children having ARI. One group pretest posttest was used in this study. 60 mothers were interviewed. Overall mean of 18.03 with SD 1.69 in the pretest score and overall mean of 32.22 and SD 2.05 in the posttest score. On the basis of the findings, the investigator concluded that the Planned Teaching Programme was effective.

Susan Varghese, (2010). conducted a study on evaluating the effectiveness of STP on IMNCI guidelines among mothers of underfive children in selected rural areas, Bangalore. 60 mothers were selected with convenience sampling technique. The study concluded that the STP was an effective method for providing moderate to adequate knowledge and help the mothers to enhance their knowledge regarding care of their child.

CHAPTER-III

METHODOLOGY

Methodology is a significant part of any study, enables the researcher to project the research undertaken. Research methodology is the systematic way to carry out an academic study and research in flawless manner. The methodology enables the researcher to project a blue print of the details, data, approach, analysis, findings of research undertaken. The present study was conducted to find out the effectiveness of Computer Assisted Instruction on knowledge and knowledge on practice regarding selected aspects of IMNCI guidelines among mothers of underfive children.

Research approach

Quantitative evaluative approach was used in this study.

Research design

The research design used in the study was pre-experimental one group pre-test post test design.

O1 X O2

O1- Pre test assessment of knowledge & knowledge on practice among underfive mothers.

X - Intervention (Computer Assisted Instruction regarding selected aspects of IMNCI guidelines).

O2- Post test assessment of knowledge & knowledge on practice among underfive mothers.

Variables

Independent variable	-	Computer Assisted Instruction
Dependent variable	-	knowledge and knowledge on practice

Description of the setting

The study was conducted at Manakkadu in Tanjore district. This village was situated 210 kms away from Sara Nursing College. Total population was 10,000 in which 1200 belongs to infants and 2500 belongs to underfive children. One PHC is situated 10kms away from the village which provides care to the people.

Population

The target population of the study was mothers of under five children.

Sample

The sample of the study comprised of mothers of under five children residing during the data collection period.

Sample size

The total sample size is 60 mothers of under five children in selected rural area at Tanjore district.

Sampling technique

Non probability Convenience sampling technique was used for this study.

Criteria for sample selection

The sample was selected based on the following inclusion and exclusion criteria.

Inclusion criteria

- Mothers who are all having under five children(2months -5 years).
- Mothers who are all available during the data collection period.
- Mothers who can speak and understanding Tamil.

Exclusion criteria

- Mothers who are health personnel
- Mothers who are mentally ill
- Mothers who are having Mental Retarded children
- Mothers who are not willing to participate in this study

Description of the tool

Section A- A structured interview schedule was used to assess the demographic data like age, religion, education, occupation of the mother, family income, type of family, number of under five children, baby care advice is sought by, frequent usage of health care services and information regarding IMNCI guidelines.

Section B - Structured knowledge questionnaire

This part consisted of structured questionnaire with 25 multiple choice questions regarding selected aspects of IMNCI guidelines. The questionnaire was translated in Tamil. The accuracy of the translation was confirmed by back translation. There was one correct answer and 3 distracters for each question. For every correct answer a score of one awarded and for every wrong answer a score of zero awarded. The total possible score was 25. The total score of each subject was calculated and converted in to percentage and interpreted as follows,

75% and above	Good knowledge
51-74%	Average knowledge
50% and below	Poor knowledge

Section C - Check List

It consisted of Check list. The entire procedure was broken in to 10items. The check list was translated in Tamil. The accuracy of the translation was confirmed by back translation. Each items had 2options (Yes / No). If the participant said ‘yes’ then the score of one was awarded. If they said ‘no’ a score of zero was awarded. The maximum obtainable score for the check list was 10. The total score of each subject was calculated and converted in to percentage and interpreted as follows,

75% and above	Adequate practice
51-74%	Moderately adequate practice
50% and below	Inadequate practice

Validity

For content validity 4experts (3experts from pediatric nursing and 1paediatrician). The tool was found valid. The suggestion were incorporated.

Reliability

To ensure the reliability of the tool, it has been administered 6 underfive mothers. Reliability of the tool was established by test re-test method and the reliability was r=0.8.Hence the tool was reliable.

Pilot study

In order to find out feasibility and practicability, a pilot study was conducted at Aalapiranthaan, Pudukottai District for a period of 1 week (16.6.2011-23.6.2011) among 6 mothers of under five children. The study was found feasible to conduct.

Method of data collection

Ethical considerations

Formal permission was obtained from the president of Manakkadu village and Informed oral consent was obtained from the subjects.

Period of data collection

Data collection was done over a period of 4 weeks from 29.06.11to 28.07.11.

Data collection procedure

The present study was conducted in Manakkadu at Tanjore district. Pre-experimental one group pretest posttest design was used for this study. Permission was obtained from the president of Manakkadu village and data collection was done over the period of 4 weeks. The investigator had selected 60 under five mothers through convenience sampling technique. Oral consent was obtained. Then the investigator did a pretest on the level of knowledge and knowledge on practice. Structured knowledge questionnaire was used for assessing the level of knowledge and check list was used for assessing the level of knowledge on practice. Then computer Assisted Instruction administered to the subjects regarding selected aspects of IMNCI guidelines like assessment, classification, treatment and counseling of pneumonia, anaemia, diarrhea, malnutrition and immunization for 30mts duration. Then the posttest level of knowledge and level of knowledge on practice of the subject was assessed after 15days with the help of same questionnaire.

PLAN FOR DATA ANALYSIS

Descriptive statistical analysis was used for categorical data, Paired “t” test was used to evaluate the effectiveness of Computer Assisted Instruction. Karl Pearson correlation was used to find out the relationship between the posttest level of knowledge and level of knowledge on practice. Chi square test of significance was used to find out the association between the post test level of knowledge and level of knowledge on practice regarding selected aspects IMNCI guidelines.

CHAPTER IV

ANALYSIS AND INTERPRETATION

Research data must be processed and analyzed in an orderly fashion so that patterns and relationship can be discerned and validated and hypothesis can be tested. Quantitative data analyzed through statistical analysis includes simple procedures as well as complex and sophisticated methods**. (Polit, 2004).**

In this chapter, the data collected were systemically processed, tabulated and made suitable for analysis and interpretations. A Study to evaluate the effectiveness of Computer Assisted Instruction on knowledge and knowledge on practice regarding selected aspects of IMNCI guidelines among mothers of under five children in selected rural area at Tanjore District. A sample of 60 respondents was selected. The results obtained were classified, tabulated and the following analyses were performed in fulfilling the objectives of the study.

The data analysis presented as following sections

Section A - Distribution of samples according to their demographic variables.

Section B - Distribution of subject's according to level of knowledge and level of knowledge on practice regarding selected aspects of IMNCI guidelines before and after Computer Assisted Instruction.

Section C - Effectiveness of computer assisted instruction in improving the level of knowledge and level of knowledge on practice regarding selected aspects of IMNCI guidelines among mothers of underfive children.

Section D - Co-relation between the post test level of knowledge and post test level of Knowledge on practice regarding selected aspects of IMNCI guidelines among mothers of underfive children.

Section E - Association between the post test level of knowledge and their demographic variables regarding selected aspects of IMNCI guidelines among mothers of underfive children.

Section F - Association between the post test level of knowledge on practice and their demographic variables regarding selected aspects of IMNCI guidelines among mothers of underfive children.

Section-A

Table-4.1 Distribution of subjects according to their demographic variables

n=60

S. No	Demographic variables	Frequency(f)	Percentage(%)
1	**Age**		
	a) 20-25	16	26.7
	b) 26-30	27	45
	c) 31-35	17	28.3
2	**Religion**		
	a) Hindu	56	93.3
	b) Christian	3	5
	c) Muslim	1	1.7
3	**Educational status**		
	a) No formal education	2	3.3
	b) Primary education	12	20
	c) High school	28	46.7
	d) Higher secondary	11	18.3
	e) Collegiate	7	11.7
4	**Occupation of mothers**		
	a) Housewife	53	88.3
	b) Daily wage worker	6	10
	c) Technical worker	1	1.7
5	**Income of family**		
	a) Below 3000	34	56.7
	b) 3001-5000	20	33.3
	c) Above 5000	6	10
6	**Type of family**		
	a) Nuclear	35	58.3
	b) Joint	22	36.7
	c) Extend	3	5

7	**Number of under five children**		
	a) One	46	76.7
	b) Two	13	21.6
	c) Three & above	1	1.7
8	**Baby care advice is sought by**		
	a) Parents	45	75
	b) Grandparents	13	21.7
	c) Relations	2	3.3
9	**Frequency usage of health care services**		
	a) Primary Health centre	9	15
	b) Sub centre	3	5
	c) Private clinic	16	26.7
	d) Government Hospital	20	33.3
	e) Private Hospital	12	20
10	**Information regarding IMNCI guidelines**		
	a) Primary Health worker	7	11.7
	b) Printed /Electronic Media	-	-
	c) Friends/Neighbors	-	-
	d) No information	53	88.3

Table 4.1shows that according to their demographic variables majority of the subjects 27(45%) were in the age group of 26-30 years, Religion 56 (93.3%) were Hindu, regarding education status 28(46.7%) had studied up to high school level education, with regard occupation status of mothers 53(88.9%) were House wife, family monthly income 34(56.7%) of the mothers of below 3000, family size 35(58.3%) were belongs to Nuclear family, Number of underfive children 46(76.7%) have one children, baby care advice is sought by 45 (75%) from parents, frequency usage of health care services 20(33.3%) were using government hospital, information regarding IMNCI guidelines 53(88.3%) doesn't receive any information.

SECTION B

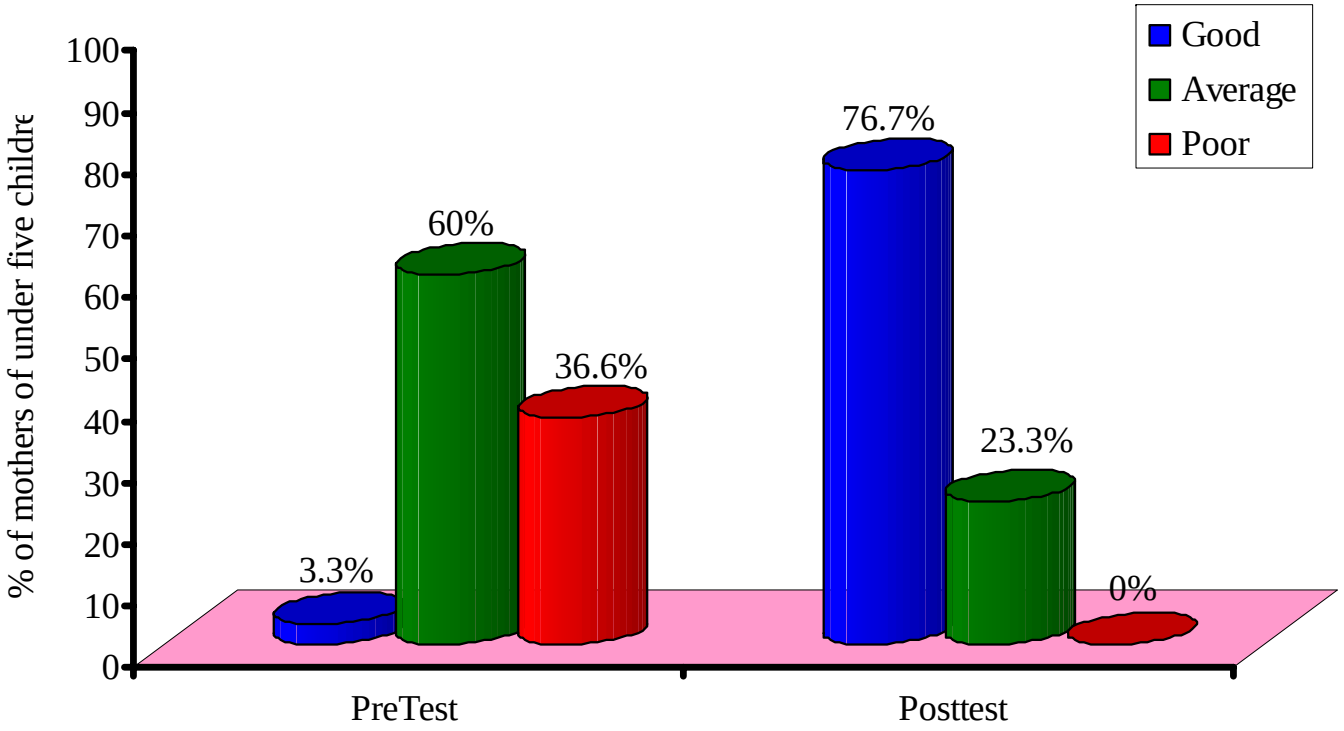

Figure 4.1:Distribution of subjects level of knowledge before and after computer Assisted Instruction.

Figure 4.1 shows that among the 60 subjects, majority of the subjects 36(60%) had average knowledge, 22(36.6%) of the subjects had poor knowledge and 2(3.3%) of the subjects had good knowledge before computer assisted instruction. Whereas majority of the subjects 46(76.7%) had good knowledge, 14(23.3%) subjects had average knowledge after Computer Assisted Instruction.

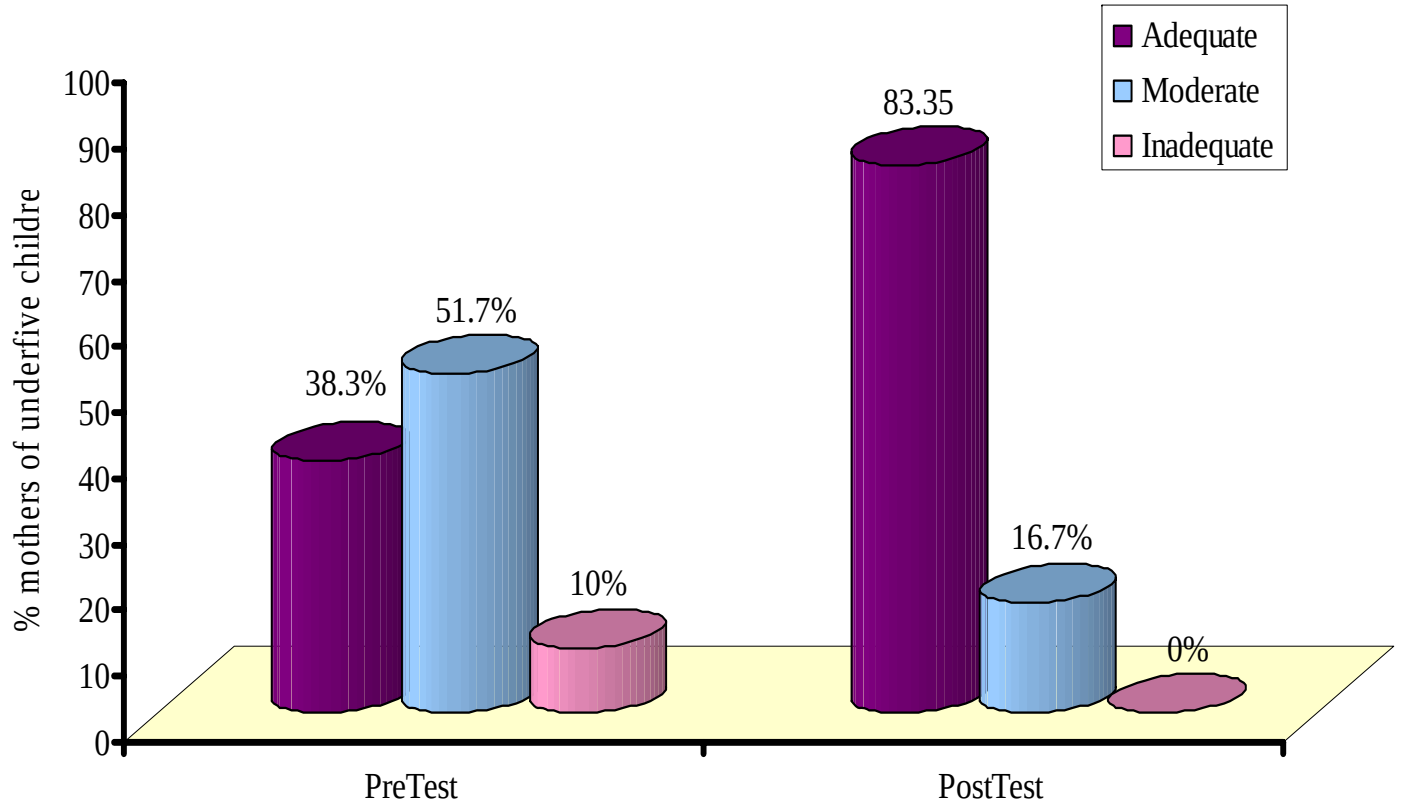

Figure 4.2: Distribution of subjects level of knowledge on practice before and after computer Assisted Instruction.

It showed that among the 60 subjects', majority of the subjects' had 31(51.7%) had Moderate knowledge on practice, 23(38.3%) had Adequate knowledge on practice, 6(10%) of the subjects had inadequate knowledge on practice before computer assisted instruction. whereas Majority of the subjects 50(83.3%) had adequate knowledge on practice, 10(16.7%) subjects had Moderate knowledge on practice after Computer Assisted Instruction.

SECTION - C

Table -4-2: Effectiveness of Computer Assisted Instruction in improving the level of knowledge and level of knowledge on practice regarding selected aspects of IMNCI guidelines among mothers of underfive children.

n = 60

S. No	variables	Maximum score	Pre test		Post test		't' Value
			Mean	SD	Mean	SD	
1	Knowledge	25	11.63	3.39	20.4	2.23	16.87*
2	Knowledge on practice	10	7.15	1.35	8.81	1.16	12.09*

***(P <0.05)**

Table 4.2 shows that there was a significant difference found (P< 0.05) between the pretest mean score 11.63 (±3.39) and posttest score of knowledge 20.4 (±2.23) and pretest knowledge on practice mean score 7.15 (±1.35) and posttest mean score 8.81 (+12.09). The t value for knowledge is 16.87 and 12.09 for knowledge on practice which is greater than table value (1.671) at p <0.05. It shows that the Computer Assisted Instruction is effective to improve the knowledge and knowledge on practice regarding selected aspects of IMNCI guidelines among mothers of under five children.

Hence H_1 is retained

Table -4-3: Effectiveness of Computer Assisted Instruction in improving the level of knowledge regarding individual aspects of IMNCI guidelines among mothers of underfive children.

n=60

S. No	Knowledge aspects	Maximum score	Pre test		Posttest		Mean difference	Paired 't' test
			Mean	SD	Mean	SD		
1	General information of IMNCI guidelines	4	1.68	0.70	2.97	0.44	1.29	28.01*
2	Pneumonia	4	1.98	0.77	3.43	0.63	1.45	12.22*
3	Anaemia	5	1.92	0.8	3.55	0.76	1.63	13*
4	Diarrhea	4	2.07	1.78	3.4	0.66	1.33	9.02*
5	Malnutrition	4	1.83	0.7	3.37	0.66	1.5	13.93*
6	Immunization	4	2.02	0.74	3.42	0.66	1.4	11.65*

***(P <0.05)**

Table 4.3shows that the estimated 't' value for the level of knowledge in general information of IMNCI guidelines, pneumonia and anaemia were 28.01, 12.22, and13. The t value of diarrhea, malnutrition and immunization were 9.02, 13.93 and 11.65 respectively at P<0.05 level. It shows that the Computer Assisted Instruction is effective to improve the knowledge regarding individual aspects of IMNCI guidelines among mothers of under five children.

Table -4-4: Effectiveness of Computer Assisted Instruction in improving the level of knowledge on practice regarding individual aspects of IMNCI guidelines among mothers of underfive children.

n = 60

S. No	Knowledge on practice aspects	Maximum score	Pre test		Posttest		Mean difference	Pair 't' test
			Mean	SD	Mean	SD		
1	General information of IMNCI guidelines	2	1.16	0.41	1.68	0.47	0.52	6.64*
2	Pneumonia	1	0.93	0.24	1	0	0.07	2.25*
3	Anaemia	2	1.45	0.49	1.7	0.46	0.25	3.46*
4	Diarrhea	2	1.35	0.51	1.7	0.46	1.35	5.46*
5	Malnutrition	1	0.96	0.17	1	0	0.04	7.74*
6	Immunization	2	1.3	0.49	1.75	0.43	0.45	7.10*

***(P <0.05)**

Table 4.4shows that the estimated 't' value for the level of knowledge on practice in general information of IMNCI guidelines, pneumonia and anaemia were 6.64, 2.25 and 3.46. The t value of diarrhea, malnutrition and immunization were 5.46, 7.74 and 7.10respectively at P<0.05 level. It shows that the Computer Assisted Instruction is effective to improve the knowledge on practice regarding individual aspects of IMNCI guidelines among mothers of under five children.

SECTION - D

Table 4-5: Co-relation between the post test level of knowledge score and level of Knowledge on practice score regarding selected aspects of IMNCI guidelines among mothers of under five children.

n=60

	Knowledge		**Knowledge on practice**		**'r' value**
	Mean	**SD**	**Mean**	**SD**	
Sample 60	20.4	2.23	8.81	1.16	0.7

Table 4-3 shows that there is a positive co-relation was observed between the level of knowledge and knowledge on practice regarding selected aspects of IMNCI guidelines among mothers of under five children.

SECTION- E

Table4-6: Association between the post test level of knowledge and their demographic variables.

n=60

SL NO	Demographic variables	Effectiveness				Chi-Square
		Good		Average		
		F	%	f	%	
1	**Age**					
	a) 20-25	12	20	4	6.67	
	b) 26-30	20	33.3	7	11.6	0.433
	c) 31-35	14	23.3	3	5	
2	**Religion**					
	a) Hindu	43	71.1	13	21.7	
	b) Christian	2	3.3	1	1.7	0.47
	c) Muslim	1	1.7	-	-	
3	**Educational status**					
	a) No formal education	2	3.3	2	3.3	
	b) Primary education	10	16.7	9	15	
	c) High school	19	31.7	1	1.7	3.488
	d) Higher secondary	10	16.7	2	3.3	
	e) Collegiate	5	8.3	-	-	
4	**Occupation of mothers**					
	a) Housewife	43	71.7	10	16.7	6.32*
	b) Daily wage worker	3	5	3	5	
	c) Technical worker	-	-	1	1.7	
5	**Income of family**					
	a) Below 3000	27	45	7	1.67	
	b) 3001-5000	15	25	5	8.3	0.507
	c) Above 5000	4	6.7	2	3.3	
6	**Type of family**					
	a)Nuclear	25	41.7	10	16.7	
	b)Joint	19	31.7	3	5	1.856
	c)Extend	2	3.3	1	1.7	

7	**Number of under five children**					
	a) One	33	55	13	21.7	
	b) Two	12	20	1	1.7	2.695
	c) Three & above	1	1.7	-	-	
8	**Baby care advice is sought by**					
	a)Parents	34	56.7	11	18.3	
	b)Grandparents	11	18.3	2	3.3	1.226
	c)Relations	1	1.7	1	1.7	
9	**Frequency usage of health care services**					
	a)Primary Health centre	7	11.67	2	3.3	
	b)Sub centre	2	3.3	1	1.7	
	c) Private clinic	16	26.7	-	-	9.833
	d)Government Hospital	15	25	5	8.3	
	e)Private Hospital	6	10	6	10	
10	**Information regarding IMNCI guidelines**					
	a)Primary Health worker	5	8.3	2	3.3	
	b)Printed/Electronic Media	-	-	-	-	0.122
	c) Friends/Neighbors	-	-	-	-	
	d)No information	41	68.3	12	20	

***(P <0.05)**

The table4-6shows that there was a significant association between post test level of knowledge with occupational status of mother and there is no association between age, religion, education, family income, type of family, number of under five children, baby care advice is sought by, frequency usage of health care services and information regarding IMNCI guidelines.

SECTION - F

Table4-7: Association between the post test level of knowledge on practice and selected demographic variables. **n=60**

SL NO	Demographic variables	Effectiveness				Chi-Square
		Good		Average		
		F	%	f	%	
1	**Age**					
	a) 20-25	13	21.7	3	5	
	b) 26-30	22	36.7	5	8.3	0.405
	c) 31-35	15	25	2	3.3	
2	**Religion**					
	a) Hindu	47	78.3	9	15	
	b) Christian	2	3.3	1	1.7	0.817
	c) Muslim	1	1.7	-	-	
3	**Educational status**					
	a) No formal education	2	3.3	-	-	
	b) Primary education	11	18.3	1	1.7	
	c) High school	21	35	7	11.7	5.29
	d) Higher secondary	11	18.3	-	-	
	e) Collegiate	5	8.3	2	3.3	
4	**Occupation of mothers**					
	a) Housewife	46	76.7	7	11.7	
	b) Daily wage worker	4	6.7	2	3.3	6.536*
	c) Technical worker	-	-	1	1.7	
5	**Income of family**					
	a) Below 3000	28	46.7	6	10	
	b) 3001-5000	18	30	2	3.3	1.859
	c) Above 5000	4	6.7	2	3.3	

6	**Type of family**					
	a) Nuclear	27	45	8	13.3	
	b) Joint	21	35	1	1.7	3.898
	c) Extend	2	3.3	1	1.7	
7	**Number of under five children**					
	a) One	38	63.3	8	13.3	
	b) Two	12	20	1	1.7	5.654
	c) Three & above	-	-	1	1.7	
8	**Baby care advice is sought by**					
	a) Parents	37	61.7	8	13.3	
	b) Grandparents	12	20	1	1.7	2.417
	c) Relations	1	1.7	1	1.7	
9	**Frequency usage health care services**					
	a) Primary Health centre	8	13.3	1	1.7	
	b) Sub centre	2	3.3	1	1.7	
	c) Private clinic	13	21.7	3	5	0.889
	d) Government Hospital	17	28.3	3	5	
	e) Private Hospital	10	16.7	2	3.3	
10	**Information regarding IMNCI guidelines**					
	a) Primary Health worker	6	10	1	1.7	
	b) Printed/Electronic Media	-	-	-	-	0.0316
	c) Friends/Neighbors	-	-	-	-	
	d) No information	44	73.3	9	15	

***(P <0.05)**

The table 4-7 shows that there was a significant association between the level of knowledge on practice and their occupational status of the mother and there is no association between age, religion, education, family income, type of family, number of under five children, baby care advice is sought by, frequency usage of health care services and information regarding IMNCI guidelines.

CHAPTER-V
DISCUSSION

This chapter presents the interpretation of the statistical findings.

The aim of this study is to evaluate the effectiveness of Computer Assisted Instruction on knowledge and knowledge on practice regarding IMNCI guidelines among mothers of under five children in selected rural area at Tanjore district.

An evaluative approach was used for the present study. The study population comprised of under five mothers. The sample size is 60. A convenience sampling technique was used to collect the data. The data collection tools used were knowledge questionnaire, checklist was used to evaluate the knowledge on practice. The content validity and reliability was established for all the tools. The pilot study was done on 6mothers of under five children who met the inclusion criteria. During the period of data collection the data were collected from the under five mothers by using the tool, which had already been prepared by the investigator.

Objective 1: To assess the knowledge on IMNCI guidelines among mothers of under five children before and after Computer Assisted Instruction

The findings shows that among the 60 subjects', majority of the subjects 36(60%) had average knowledge, 22(36.6%) of the subjects had poor knowledge and 2(3.3%) of the subjects had good knowledge before Computer Assisted Instruction. Whereas majority of the subjects 46(76.7%) had good knowledge, 14(23.3%) subjects had average knowledge after Computer Assisted Instruction.

Objective2: To assess the knowledge on practice on IMNCI guidelines among mothers of under five children before and after Computer Assisted Instruction

The findings shows that among the 60 subject's, majority of the subjects' had 31(51.7%) had Moderate knowledge on practice, 23(38.3%) had Adequate knowledge on practice, 6(10%) of the subjects had inadequate knowledge on practice before Computer Assisted Instruction. whereas Majority of the subjects 50(83.3%) had adequate knowledge on practice, 10(16.7%) subjects had Moderate knowledge on practice after Computer Assisted Instruction.

Objective3: To evaluate the effectiveness of Computer Assisted Instruction on IMNCI guidelines among mothers of under five children.

There was significant difference found (P< 0.05) between the pre test mean score 11.63(±3.39) and post test score of knowledge 20.4 (±2.23) and pretest knowledge on practice mean score 7.15 (±1.35) and post test mean score 8.81 (± 12.09). The t value for knowledge is 16.87 and 12.09 for knowledge on practice which is greater than table value (1.671) at p< 0.05 level of significance.

H_1: There will be a significant difference in the level of knowledge regarding selected aspects of IMNCI guidelines among mothers of under five children before and after giving Computer Assisted Instruction at P<0.05 level of significance.

Hypothesis H1 was retained.

The findings are congruent with the study done by Thompson, ME., and Harutyunyan, (2009). conducted a study on knowledge of mother on maternal and child health status in Armenian. IMNCI training were implemented 5000 caretakers. A prepost independent sample design was used in the study. This evaluation documented the significant and substantial impact of the community IMNCI program on both knowledge and practice.

Objective4: To correlate the level of knowledge with the level of knowledge on practice on IMNCI guidelines among mothers of under five children.

Table 4-3 revealed that the mean score of knowledge and knowledge on practice were 20.4, 8.81 and standard deviation of knowledge and knowledge on practice were 2.23, 1.16. The co-efficient correlation between post test knowledge and knowledge on practice of subjects was positively co-related r was = 0.7.

H_3 - There is a significant correlation between the level of knowledge with the level of knowledge on practice on IMNCI guidelines among mothers of under five children.

Hypothesis H3 was retained.

Objective5: To associate the post test level of knowledge on IMNCI guidelines among mothers of under five children with selected demographic variables.

There was a significant association between the level of knowledge and their occupational status of the mother and there is no association between age, religion, education, family income, type of family, number of under five children, baby care advice is sought by, frequency usage of health care services and information regarding IMNCI guidelines.

H_4 - There will be a significant association between the level of knowledge on IMNCI guidelines among mothers of under five children with selected demographic variables.

Therefore hypothesis $H_4$was retained.

The findings are congruent with the study done by ***Susan Varghese, (2010).*** *conducted a study on evaluating the effectiveness of Structured Teaching Programme on IMNCI guidelines among mothers in selected rural areas in Bangalore. It is observed that there is a significant association between occupational status, frequency usage of health care services.*

Objective6: To associate the post test level of knowledge on practice on IMNCI guidelines among mothers of under five children with selected demographic variables.

There was a significant association between the level of knowledge on practice and their occupational status of the mother and there is no association between age, religion, education, family income, type of family, number of under five children, baby care advice is sought by, frequency usage of health care services and information regarding IMNCI guidelines.

H_5 - There will be a significant association between the level of knowledge on practice on IMNCI guidelines among mothers of under five children with selected demographic variables.

Therefore hypothesis $H_4$was retained

CHAPTER-VI
SUMMARY, CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS

This chapter deals with summary of the study findings and its implications for nursing and health care services. It clarifies the implications and recommendations given for different areas like nursing education, nursing practice, administration for health care delivery system and nursing research.

Summary of the study

The purpose of the study was to evaluate the effectiveness of Computer Assisted Instruction on knowledge and knowledge on practice regarding selected aspects of IMNCI guidelines. A pre-experimental design was used in the study among 60 mothers of underfive children at selected rural area in Tanjore District.

CONCLUSION

Based on the findings, the following conclusions were drawn.

- The study revealed that Computer Assisted Instruction shows effectiveness on knowledge and knowledge on practice regarding selected aspects of IMNCI guidelines among mothers of under five children.
- There was a significant association between post test level of knowledge with occupational status of mother and there is no association between age, religion, education, family income, type of family, number of under five children, baby care advice is sought by, frequency usage of health care services and information regarding IMNCI guidelines.
- There was a significant association between post test level of knowledge on practice and their occupational status of the mother and there is no association between age, religion, education, family income, type of family, number of under five children, baby care advice is sought by, frequency usage of health care services and information regarding IMNCI guidelines.

Major findings of the study

- The findings shows that among the 60 subjects', majority of the subjects 36(60%) had average knowledge, 22(36.6%) of the subjects had poor knowledge and 2(3.3%) of the subjects had good knowledge before Computer Assisted Instruction. Whereas majority of the subjects 46(76.7%) had good knowledge, 14(23.3%) subjects had average knowledge after Computer Assisted Instruction.
- The findings shows that among the 60 subject's, majority of the subjects' had 31(51.7%) had Moderate knowledge on practice, 23(38.3%) had Adequate knowledge on practice, 6(10%) of the subjects had inadequate knowledge on practice before Computer Assisted Instruction .whereas Majority of the subjects 50(83.3%) had adequate knowledge on practice, 10(16.7%) subjects had Moderate knowledge on practice after Computer Assisted Instruction.
- The findings Shows that there is a positive correlation was observed between the level of knowledge and knowledge on practice of mothers of under five children. r was = 0.7.
- There was a significant association between post test level of knowledge with occupational status of mother and there is no association between age, religion, education, family income, type of family, number of under five children, baby care advice is sought by, frequency usage of health care services and information regarding IMNCI guidelines.
- There was a significant association between post test level of knowledge on practice and their occupational status of the mother and there is no association between age, religion, education, family income, type of family, number of under five children, baby care advice is sought by, frequency usage of health care services and information regarding IMNCI guidelines.

NURSING IMPLICATIONS

The findings of this study had implications in various areas of nursing i.e., nursing practice, administration, education.

Nursing practice

- The nursing personnel can demonstrate the procedures, if the mothers are unable to understand.
- Nursing students should create awareness among the parents to use ORS administration for benefits of children with diarrhea disease to minimize the complications.
- Nurses can teach the mothers regarding locally available foods and iron rich diet to prevent anaemia.
- The nursing personnel can conduct regular meeting for mothers to impart knowledge about normal nutrition ands its influence on growth and development of the children.
- Selection and preparation of food items which are locally available and demonstrate the preparation of low cost high calorie food items.
- Nurses should give counseling about follow up care to the caretakers.

Nursing Administration

- The main focus of nursing administration is to prepare adequate learning materials for giving education in hospitals, schools and community settings.
- The nurse administrator along community health worker should create awareness among Anganwadi workers to detect and report the general danger signs in children.
- She should also encourage and depute nurses to participate in such programs conducted by any other voluntary organizations.
- Organization of such programs require efficient teamwork, planning for manpower, money, material and methods and minutes to conduct successful education programmers, both at the hospital and community level.

Nursing education

- Education is the key to change in knowledge, attitudes and behavior. There is the necessity for the educationalist to know about society needs.

- Nursing students should be made aware of their role in promoting the health behavior among mothers of under five children.
- Nursing students can create awareness among mothers regarding home care of children with minor illness.
- Nurse educators can effectively teach the importance and significance of IMNCI guidelines and it helps nursing students to gain knowledge regarding IMNCI. It helps nursing students to implement IMNCI guidelines to community as well as hospitals in order to reduce the mortality & morbidity rate.

Recommendations

- A similar study can be replicated with larger sample size and in various other settings.
- It would be of immense value to conduct a comparative study among mothers between urban and rural area.
- A similar study can be undertaken by using different teaching methods.
- A similar study can be conducted on various aspects of IMNCI guidelines.

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ANNEXURE-A

SARA NURSING COLLEGE

(Recognised by Govt. of Tamil Nadu,
Affiliated to T.N. Dr. M.G.R. Medical University & Approved by Indian Nursing Council)

Palani Main Road, Manakadavu,
Dharapuram - 638 673, Tirupur District,
Tamil Nadu, South India.

Phone : 04258-244208, Fax : 04258-244254
E-mail : saranursingcollege@gmail.com
website : www.saranursingcollege.com

Date: 28/06/11
Lr.No.SNC/128/07/11

From,

The Principal,
Sara Nursing college,
Dharapuram.

To,

The President,

Union Office,

Manakadu.

Respected Sir/Madam,

Ms. N. Sathiya is a bonafide student of Sara Nursing College, Dharapuram, doing her M.Sc. (N) programme in Nursing. She is conducting a research study on

"A study to evaluate the effectiveness of Computer Assisted Instruction on knowledge and knowledge on practice regarding selected aspects of IMNCI guidelines among mothers of under five children at selected rural areas in Tanjore District. The research project is to be submitted to "The Tamilnadu Dr.M.G.R. Medical University" as a partial fulfillment of the University requirements for the award of M.Sc., (N) Degree. The researcher is anticipating that this project will be beneficial in improving the knowledge and knowledge on practice among under five mothers in your community area.

As per of the study she needs to evaluate the selected subjects for the effectiveness Computer Assisted Instruction knowledge and knowledge on practice regarding selected aspects of IMNCI guidelines among mothers of under five children at selected rural areas in Tanjore District and document the collected data for analysis and report.

Hence I request your kind consent for her to conduct the study in your community area. Further details of the proposed project outcome will be furnished by the researcher in person. The village norms, policies and ethics will be respected and strictly adhered by the researcher throughout the study period (July month).

SARA NURSING COLLEGE
Dharapuram-638 673.
Tirupur-Dist.

Thanking You

Victoria Chandra
Principal

PRINCIPAL
Sara Nursing College,
Dharapuram - 638 673.

A. நீலா M.Sc.,B.Ed.,
தலைவர், ஊராட்சி மன்றம்,
மணக்காடு - 614 612

மணக்காடு - 614 612
சேதுபாவாசத்திரம் ஒன்றியம்,
பேராவூரணி வட்டம், தஞ்சை மாவட்டம்.
Cell : 99767 - 82641, 98659 - 02504

நாள் :

To

The Principal,

Sara Nursing College,

Dharapuram.

Respected Madam,

This is certify that Ms.N. SATHIYA IInd Year M.Sc(N), has conducted a study on "A study to evaluate the effectiveness of Computer Assisted Instruction on knowledge and knowledge on practice regarding selected aspects of IMNCI guidelines among mothers of under five children at selected rural areas in Tanjore District and she collected data from 29.06.11 to 28.07.11 in our community area.

Thanking you

தலைவர்
ஊராட்சி மன்றம்.
மணக்காடு

ANNEXURE-B

Section- A

Demographic variables

1. Age
    a. 20-25 years
    b. 26-30 years
    c. 31-35 years

2. Religion
    a. Hindu
    b. Christian
    c. Muslim

3 .Education of the mother
    a. No formal education
    b. Primary education
    c. High School
    d. Higher Secondary
    e. Collegiate

4. Occupation of the mother
    a. Home maker
    b. Daily wage worker
    c. Technical worker

5. Family income
    a. >Rs.3000
    b. Rs.3001-5000
    c. < 5000

6. Type of family
    a. Nuclear
    b. Joint
    c. Extended

7. Number of under five children
    a. One
    b. Two
    c. Three & above

8. Baby care advice is sought from
    a. Parents
    b. Grand parents
    c. Relatives

9. The most frequently affordable health care services
    a. Primary Health centre
    b. Sub centre
    c. Private clinic
    d. Government Hospital
    e. Private Hospital

10. Source of information on IMNCI
    a. Health personnel
    b. Print media/Electronic media
    c. Friends/Neighbors
    d. No information

Section-B

Knowledge Questionnaire

1. What is mean by IMNCI?
    a) Integrated mission of neonatal and childhood illness.
    b) Integrated Management Of Neonatal and Childhood Illness
    c) Indian Mission Of Neonatal and Childhood Illness
    d) International Management Of Neonatal and Children and illness

2. Which are the common illnesses that lead to childhood mortality?
    a) Pneumonia, Diarrhoea, Measles
    b) Dermatitis, purpura, appendicitis
    c) Chicken pox, scabies, mumps
    d) Tonsillitis, fractures, burns

3. Which is the main component of IMNCI?
    a) Involvement of family members in health practices
    b) Involvement of Teachers in health practices
    c) Involvement of social workers in health practices
    d) Involvement of local dais in health practices

4. Which age group of children receives care under IMNCI?
    a) 12-14 years
    b) 10-11 years
    c) 6-9 years
    d) 0-5years

5. What is pneumonia?
    a) Infection of Brain
    b) Infection of Lungs
    c) Infection of Kidney
    d) Infection of Heart

6. Which organism causes pneumonia in developing countries?

a) Bacteria
b) Parasites
c) Insects
d) Bees

7. Which is the most important sign of pneumonia?

a) Slow breathing
b) Chest in drawing
c) Pain in the neck
d) Headache

8. What should you do, if your baby has relieved symptoms after three days of a one week treatment?

a) Stop medications to your baby
b) Discard the remaining medicines
c) Continue till the course complete
d) Wait for some more days

9. What is anemia?

a) Decreased hemoglobin in the blood
b) Decreased sodium level
c) Decreased glucose level
d) Decreased WBC level

10. What is the common cause of warm infestation?

a) Lack of food intake
b) Poor hygienic practices
c) Chronic constipation
d) Improper digestion

11. What is weaning?

a) Introduction of food other than breast milk
b) Expressed breast milk
c) Bottle feeding
d) Exclusive breast feeding

12. Which of the following sign is an indication of anemia?

a) Palmer pallor
b) Black spots over the skin
c) Red marks on the skin
d) White patches on the face

13. Which of the following is a low cost iron rich diet?

a) Orange
b) Neem Leaves
c) Drumstick Leaves
d) Apple

14. What is meant by diarrhea?

a) Watery stools more than 3 times/day
b) Blood in the stools
c) Ribbon like stools
d) Black stools

15. What is the common sign for diarrhea?

a) Dehydration
b) Loss of appetite
c) Headache
d) Pain

16) How to mix the salt and sugar solution?

a) 8teaspoons of sugar and 1 teaspoon of Salt mix with one litre of boil and cooled water.
b) 3teaspoons of sugar and 1 teaspoon of Salt mix with clean water.
c) 6teaspoons of salt and 1/2 teaspoon of sugar mix with boil water.
d) 4teaspoons of sugar and 2 teaspoon of Salt mix with clean water

17. What is meant by dysentery?

a) Green stools
b) Loose frequent stools containing visible blood
c) Yellow stools
d) Black stools

18. What is meant by malnutrition?

a) Vitamin deficiency
b) Carbohydrate deficiency
c) Protein deficiency
d) Mineral deficiency

19. What is the main cause for malnutrition?

a) Lack of nutrients
b) Genetic factors
c) Eating snacks
d) Over feeding the baby

20. Which one of the following is an important sign of malnutrition?

a) Hyperactivity
b) Poor attention span
c) Impaired growth
d) Headache

21. What is the first line management for malnutrition?

a) Administer adequate protein and calorie
b) Play therapy
c) Antibiotics
d) Divertional therapy

22. What is meant by immunization?

a) Prevent anemia
b) Prevent malnutrition
c) Protecting an individual from a disease
d) Give nourishment to the baby

23. When will you give breast feeding following vaccination?

a) Soon after vaccine
b) 15 minutes
c) 1 hour
d) 2 hours

24. Which of the following vaccine is given by the end of 9 months?

a) Measles
b) Hepatitis
c) Polio
d) Tetanus Toxoid

25. How many doses are administrated in Hepatitis B Vaccine?

a) 5 doses
b) 3 doses
c) 2 doses
d) 4 doses

Section -C

Check list

S. No	Content	Yes	No
1.	Whether IMNCI guidelines are useful to you?		
2.	Whether pneumonia can be treated with antibiotics?		
3.	Will you breast feed the baby if the child is having diarrhea?		
4.	Will ORS solution maintain the excessive water loss?		
5.	Whether you are practicing proper hygienic measures?		
6.	Whether you are cooking low cost iron rich diet?		
7.	Will you give vaccination when your child have mild cough and cold?		
8.	If you missed a usual schedule will do you continue the immunization?		
9	Will well balanced food intake prevent malnutrition?		
10.	Are you going for regular follow up after discharge?		

Scoring key for structured questionnaire:

The item number 1 to 25 was considered as the aspect of knowledge score. For every correct answer a score of one awarded and for every wrong answer a score of zero awarded.

Item	**Options**			
	a	**b**	**c**	**d**
1	0	1	0	0
2	1	0	0	0
3	1	0	0	0
4	0	0	0	1
5	0	1	0	0
6	1	0	0	0
7	0	1	0	0
8	0	0	1	0
9	1	0	0	0
10	0	1	0	0
11	1	0	0	0
12	1	0	0	0
13	0	0	1	0
14	1	0	0	0
15	1	0	0	0
16	1	0	0	0
17	0	0	1	0
18	0	0	1	0
19	1	0	0	0
20	0	0	1	0
21	1	0	0	0
22	0	0	1	0
23	0	1	0	0
24	1	0	0	0
25	0	1	0	0
			TOTAL	**25**

Scoring key for check list:

The item number 1-10 was considered as the aspect of knowledge on practice score. If they said ‘yes’ for the action was awarded a score of one and if they said ‘no’ a score of zero was awarded.

Item	Options	
	Yes	**No**
1	1	0
2	1	0
3	1	0
4	1	0
5	1	0
6	1	0
7	1	0
8	1	0
9	1	0
10	1	0
	TOTAL	**10**

தற்குறிப்புகள்

1. வயது

அ) 20 - 25வயது

ஆ) 26 - 30வயது

இ) 31 - 35வயது

2. மதம்

அ) இந்து

ஆ) கிறிஸ்துவர்

இ) இஸ்லாமியர்

3. தாயின் கல்வித்தகுதி

அ) முறையான கல்வி இல்லாதவர்

ஆ) ஆரம்பநிலைக் கல்வித்தகுதி

இ) இடைநிலை கல்வித்தகுதி

ஈ) மேல்நிலை கல்வித்தகுதி

உ) கல்லூரி படிப்பு

4. தாயின் தொழில் தகுதி

அ) இல்லத்தரசி

ஆ) தினக்கூலி

இ) தொழில் நுட்பபணி

5. குடும்ப வருமானம்

அ) ரூ. 3000க்குள்

ஆ) ரூ. 3001 - ரூ. 5000வரை

இ) ரூ. 5000க்கு மேல்

6. குடும்பத்தின் வகை

அ) தனிக்குடும்பம்

ஆ) கூட்டுக்குடும்பம்

இ) விரிவான குடும்பம்

7. ஐந்து வயதிற்குள் உள்ள குழந்தைகளின் எண்ணிக்கை

அ) ஒன்று

ஆ) இரண்டு

இ) மூன்றும் அதற்கு மேல்

8. குழந்தை பராமரிப்பு வழிவகை

அ) பெற்றோர்கள்

ஆ) தாத்தா, பாட்டி

இ) உறவினர்கள்

9. அடிக்கடி உபயோகப்படுத்தும் நல சேவை மையம்

அ) ஆரம்ப சுகாதாரநிலையம்

ஆ) துணை சுகாதாரநிலையம்

இ) தனியார் சுகாதாரநிலையம்

ஈ) அரசு மருத்துவமணை

உ) தனியார் மருத்துவமணை

10. தகவல்களின் மூலாதாரம்

அ) சுகாராரா அலுவலர்கள்

ஆ) அச்சிட்ட செய்திகள் / மின்னஞ்சல்

இ) உறவினர்கள் - குடும்ப அங்கத்தினர்

ஈ) நண்பர்கள் - பக்கத்துவீட்டார்கள்

உ. தகவல்களின் மூலாதாரம் இல்லை

அறிவுத்திறனுக்கான கேள்விகள்

1. ஐ.எம்.என்.சி.ஐ என்றால் என்ன?

    அ) இளம்சிசு மற்றும் குழந்தைகளின் நொய்களுக்கான ஒருங்கிணைந்த சேவை செயல் திட்டம்.

    ஆ) இளம்சிசு மற்றும் குழந்தைகளின் நோய்களுக்கான ஒருங்கிணைந்த பராமரிப்பு முறை

    இ) இளம்திசு மற்றும் குழந்தைகளின் நோய்களுக்கான ஒருங்கிணைந்த இந்திய சேவை திட்டம்.

    ஈ) இளம்சிசு மற்றும் குழந்தைகளின் நோய்களுக்கான ஒருங்கிணைந்த உலகளாவிய திட்டம்.

2. பின்வருவனவற்றுள் எந்தெந்த நோய்கள் குழந்தைகளின் இறப்பு விகிதத்திற்கு காரணமாக இருக்கின்றன?

    அ) நிமோனியா, வயிற்றுபோக்கு, தட்டம்மை

    ஆ) தோல்நோய், குடல்வால்வு, வலிப்பு

    இ) அம்மைநோய், செரிசிரங்கு, பொன்னுக்கு வீங்கி

    ஈ) தொண்டை அடைப்பான், எலும்பு முறிவு, தீப்புண்

3. ஐ.எம்.என்.சி.ஐ முக்கிய உட்பகுதி என்ன?

    அ) குடும்ப நபர்களை நலப்பயிற்சியில் உட்படுத்துதல்

    ஆ) ஆசிரியர்களை நலப்பயிற்சியில் உட்படுத்துதல்

    இ) சமூகபணியாளர்களை நலப்பயிற்சியில் உட்படுத்துதல்

    ஈ) குழந்தைகளை நலப்பயிற்சியில் உட்படுத்துதல்

4. எந்த வயது குழந்தைகள் ஐ.எம்.என்.சி.ஐ கவனிப்பை பெறுகின்றனர்?

    அ) 12 - 14 வயது

    ஆ) 10 - 11 வயது

    இ) 6 - 9 வயது

    ஈ) 0 - 5 வயது

5. நிமோனியா என்றால் என்ன?

    அ) மூளை பாதிப்பு

    ஆ) நுரையீரல் பாதிப்பு

    இ) சிறுநீரக பாதிப்பு

    ஈ) இதய பாதிப்பு

6. வயரும் நாட்டில் எந்த வகையான கிருமி நிமோனியாவை உண்டு பண்ணுகிறது?

அ) பாக்டீரியா

ஆ) ஒட்டுண்ணி

இ) பூச்சி

ஈ) தேனீ

7. நிமோனியாவிற்க்கு உரிய முக்கியமான அறிகுறி எது?

அ) மெதுவாக சுவாசித்தல்

ஆ) நெஞ்சு விரிவாக்கமின்மை (உள்வாங்குதல)

இ) கழுத்து வலி

ஈ) தலை வலி

8. நிமோனியா உள்ள குழந்தைகளுக்கு ஒரு வாரத்திற்கான மருந்துகள் வழங்கப்படுகின்றன, ஆனால் குழந்தைகளுக்கு மூன்று நாட்களிலே அறிகுறிகள் நின்றுவிட்டால் மருந்தை என்ன செய்வீர்கள்?

அ) குழந்தைகளுக்கு மருந்து கொடுப்பதை நிறுத்தல்

ஆ) எஞ்சிய மருந்துகளை பயன்படுத்தாமை

இ) மருந்து முடியும் வரை கொடுத்தல்

ஈ) மருந்து கெடுக்காமல் சில நாட்கள் காத்திருத்தல்

9. இரத்த சோகை என்றால் என்ன?

அ) இரத்தத்தில் இரும்பு சத்து குறைவாக இருத்தல்

ஆ) சோடியம் குறைவாக இருத்தல்

இ) சர்க்கரையின் அளவு குறைவாக இருத்தல்

ஈ) இரத்த வெள்ளை அணுக்கள் குறைவாக இருத்தல்

10. புழுக்களினால் வரும் நோய்களுக்கு முக்கிய காரணம் என்ன?

அ) சாப்பாட்டின் அளவு குறைவாக இருத்தல்

ஆ) சுய சுத்த பயிற்சி குறைவாக இருத்தல்

இ) நீண்டகால மலச்சிக்கல்

ஈ) செறிமானம் இல்லாமல்

11. இணை உணவு என்றால் என்ன?

அ) தாய்ப்பாலுடன் சேர்த்து உணவு கொடுத்தல்

ஆ)வெளியேறப்பட்ட தாய்ப்பால்

இ) புட்டிப்பால்

ஈ) தாய்ப்பால் மட்டும்

12. கீழ்க்கண்டவற்றுள் இரத்தசோகைக்கான அறிகுறி எது?

அ) கை வெளிரியிருத்தல்

ஆ) தோலின் மேல் கரும்புள்ளி இருத்தல்

இ) தோலின் மேல் சிவப்பு புள்ளி இருத்தல்

ஈ) முகத்தில் வெள்ளை படர்தல்

13. கீழ்கண்டவற்றுள் எளிதாக கிடைக்கக் கூடிய இரும்பு சத்து உணவு எது?

அ) ஆரஞ்சு

ஆ) வேப்பிலை

இ) முருங்கை இலை

ஈ) ஆப்பிள்

14. வயிற்றுபோக்கு என்றால் என்ன?

அ) ஒரு நாளைக்கு மூன்று முறைக்கு அதிகமான நீர் போன்ற மலம்

ஆ) இரத்தத்துடன் கூடிய மலம்

இ) ரிப்பன் வடிவத்துடன் கூடிய மலம்

ஈ) மலம் கருப்பாக இருத்தல்

15. வயிற்றுபோக்கிற்கான பொதுவான அறிகுறி எது?

அ) நீர் இழப்பு

ஆ) பசியின்மை

இ) தலைவலி

ஈ) வயிறு வலி

16. சர்க்கரை உப்புக்கரைசல் கலவையை தயாரிப்பது எப்பது?

அ) ஒரு லிட்டர் கொதிக்க வைத்து ஆரவைத்த தண்ணீருடன் 8தேக்கரண்டி சர்க்கரை மற்றும் 1தேக்கரண்டி உப்பு கரைசலை கலக்கவேண்டும்.

ஆ) சுத்தமான தண்ணீருடன் 3தேக்கரண்டி சர்க்கரை மற்றும் 1தேக்கரண்டி உப்பு கரைசலை கலக்கவேண்டும்.

இ) ஒரு லிட்டர் கொதிக்க வைத்து தண்ணீருடன் 6தேக்கரண்டி உப்புக்கரைசல் மற்றும் ½ தேக்கரண்டி உப்பு சர்க்கரை கலக்கவேண்டும்.

ஈ)) சுத்தமான தண்ணீருடன் 4தேக்கரண்டி சர்க்கரை மற்றும் 2தேக்கரண்டி உப்பு கரைசலை கலக்கவேண்டும்.

17. வயிற்றுகடுப்பு என்றால் என்ன?

அ) பச்சை நிறமலம்

ஆ) இரத்த போக்குடன் அடிக்கடி மலம் வெளியேறுதல்

இ) மஞ்சள் நிறமலம்

ஈ) மலம் கருப்பாக இருத்தல்

18. புரதச்சத்து குறைபாடு என்றால் என்ன?

அ) வைட்டமின் குறைபாடு

ஆ) கொழுப்புச்சத்து குறைபாடு

இ) புரத குறைபாடு

ஈ) தாது உப்புக்கள் குறைபாடு

19. புரதச்சத்து குறைபாட்டிற்கான முக்கிய காரணம் என்ன?

அ) சத்தற்ற உணவு

ஆ) மரபு காரணிகள்

இ) நொறுக்கு தீனி

ஈ) அதிகமாக உணவு ஊட்டுதல்

20. கீழ்க்கண்டவற்றுள் எது புரத-கலோரி குறைபாட்டிற்கான முக்கிய அறிகுறி எது?

அ) அதிக செயல்திறன்

ஆ) கவனிப்பு திறன் குறைவு

இ) வளர்ச்சி குறைபாடு

ஈ) தலைவலி

21. புரத-கலோரி குறைபாட்டிற்கான முதல்நிலை பராமரிப்பு என்ன?

அ) தேவையான அளவு புரத மற்றும் கலோரி வழங்குதல்

ஆ) விளையாட்டு

இ) நோய் எதிர்ப்பு சக்தியுள்ள மருந்து

ஈ) மனதை வேறு வழியில் திருப்புதல்

22. தடுப்பூசி என்பதன் பொருள்

அ) இரத்த சோகையை தடுப்பது

ஆ) புரத-கலோரி குறைபாட்டை தடுப்பது

இ) தனி மனிதனை நோயிலிருந்து பாதுகாத்தல்

ஈ) குழந்தைக்கு போஷாக்கு அளித்தல்

23. தடுப்பூசி போடப்பட்ட பிறகு எத்தனை மணி நேரம் கழித்து தாய்ப்பால் கொடுக்க வேண்டும்.

அ) தடுப்பூசி போட்ட சில நிமிடம் கழித்து

ஆ) 15 நிமிடம் கிழித்து

இ) 1 மணி நேரம் கிழித்து

ஈ) 2 மணி நேரம் கிழித்து

24. ஒன்பது மாதத்தின் முடிவில் கொடுக்கப்படும் தடுப்பூசியின் பெயர் என்ன?

அ) தட்டம்மை

ஆ) மஞ்சள் காமாலை

இ) இளம்பிள்ளை வாதம்

ஈ) ரணஜன்னி

25. மஞ்சள் காமாலை தடுப்பூசி எத்தனை முறை போடலாம்?

அ) 5 முறை

ஆ) 3 முறை

இ) 2 முறை

ஈ) 4 முறை

அறிவுத்திறன் மற்றும் செய்முறையை சரிபார்க்கும் பட்டியல் விவரம்

வ. எண்	வினாக்கள்	ஆம்	இல்லை
1	ஐ.எம்.என.சி.ஐ-யின் கொள்கைகள் உங்களுக்கு உதவியாக இருந்ததா?		
2	நிமோனியாவை குணப்படுத்த முடியுமா?		
3	உங்களுடைய குழந்தைக்கு வயிற்றுப்போக்கு உள்ள போது தாய்ப்பால் கொடுப்பீர்களா?		
4	ORS (உப்பு மற்றும் சர்க்கரை கரைசல்) அதிகமான தண்ணீர்போக்கை சரி செய்கின்றனவா?		
5	நீங்கள் சுத்தமான பயிற்சியை மேற்கொள்கிற்களா?		
6	நீங்கள் குறைந்த செலவில் உள்ள இரும்புச்சத்து உணவை சமைக்கிறீர்களா?		
7	உங்களுடைய குழந்தைக்கு சளி மற்றும் இருமல் இருந்தால் தடுப்பூசி போடுவீர்களா?		
8	தடுப்பூசி அட்டவணையிலிருந்து வழக்கமாக போடும் ஒரு தடுப்பூசியை மறந்துவிட்டால், தடுப்பூசியை தொடர்ந்து எடுத்துகொள்வீர்களா?		
9	சரிவிகித உணவு புரதசத்து- கலோரி குறைபாட்டை தடுக்குமா?		
10	நீங்கள் மருத்துவணையில் இருந்து சென்ற பிறகு முறையாக மறுபரிசோதனைக்கு செல்வீர்களா?		

ANNEXURE-C

Computer Assisted Instruction

"PREVENTION IS BETTER THAN CURE"

INTRODUCTION

Over the last three decades, the annual number of death among children less than 5 years of. Every year more than 10 million children die in developing countries before they reach their fifth birthday. Seven in 10, out of these deaths are due to respiratory infections (mostly Pneumonia), diarrhea, measles, malaria or malnutrition, and often to a combination of these illnesses. The major reason for developing the IMNCI strategy also addresses aspects of nutrition, immunization, and other important elements of disease prevention and health promotion.

RATIONALE FOR IMNCI

Many well- known prevention and treatment strategies have already proven effective for saving young lives. Childhood vaccinations have successfully reduced death due to measles. Oral rehydration therapy has contributed to a major reduction in diarrheal deaths. Effective antibiotics have saved millions of children with pneumonia. While each of these interventions has been successful, accumulating evidence suggests that an integrated approach is needed to manage sick children to achieve better outcomes. During mid 1990's World Health Organization, in collaboration with UNICEF and many other agencies, institutions and individuals, responded to this challenge by developing a strategy known as Integrated Management of child hood illness (IMNCI). This Strategy has been expanded in India to include all neonates and renamed as Integrated Management of Neonate and Child hood Illness (IMNCI).

PURPOSES OF IMNCI

- To reduce the death and frequency and severity of illness and disability
- To contribute to improve growth and development

COMPONENTS OF IMNCI

- Active involvement of family members and community in the health care process.
- Improvements in family and community health care practices.

PRINCIPLES

- All sick children age 2 months up to 5 years must be examine for general danger signs which indicate the need for immediate referral or admission to the hospital.
- They must be routinely assessed for major symptoms: cough/difficult breathing, fever, and anemia.
- IMNCI management procedures use a limited number of essential drugs and encourage active participation of care takers in the treatment of infants and children.

PNEUMONIA

Respiratory infections can occur in any part of the respiratory tract, such as the nose, throat, larynx, trachea, air passages or lungs. A child with cough or difficulty breathing may have pneumonia or another severe respiratory infection. Pneumonia is the infection of lungs. Both viruses and bacteria can cause pneumonia. In developing countries, Pneumonia are often due to bacteria.

Classification of cough or difficult breathing

1) **Severe Pneumonia**:

This group includes children with any general danger signs (vomiting, lethargy, convulsions or unable to drink or breast feed) ,or lower chest in drawing , or harsh noise when calm.

2) **Pneumonia**: This includes all children with fast respiratory rate
3) **No Pneumonia**: No signs of pneumonia or very severe disease

Child's age		**Breathing rates**
2 months up to 12 months	-	50 breaths/ minute or more
12 months up to 5 years	-	40 breaths/minute or more

Children with Pneumonia can be easily identified by the mother with two main clinical signs, i.e. Lower chest in drawing and fast breathing. Lower chest wall in drawing is, defines as the inward movement of the bony structure of the chest wall during inspiration. Chest in drawing should only be considered present if it is consistently present in a calm child. A child who has harsh noise, when calm has a dangerous condition, in case of pneumonia. To look and listen for harsh noise, look to see when the child breaths in. Then listen for harsh noise, by putting your ear near the child's mouth because harsh noise can be difficult to hear. Be sure to look and listen when child is calm. If the child is having cough and difficult breathing for more than 4-5 days; it is very important to show the baby to a pediatrician. If he is advising antibiotic treatment; it is very important to complete its dosage. If it is stopping in between it will not give any effectiveness cough may again starts. A child with cough and cold normally improves in one or two weeks. However a child with chronic cough (more than 30 days) needs to be further assessed (and if needed, referred), to exclude tuberculosis, asthma, whooping cough or another problem.

ANAEMIA

Anaemia is defined as the deficiency of hemoglobin in the blood .Iron is requires for the formation of hemoglobin in the blood. Hemoglobin carries oxygen and essential nutrients. Iron is of greater importance in human nutrition. Each gram of hemoglobin contains about 3.34 mg of iron.

Function of Iron

- Formation of hemoglobin
- Brain development and its function
- Regulation of Body temperature
- Muscle activity

The central function of iron is "oxygen transport", cell respiration.

Sources of iron

All whole grain cereals, pulses, legumes, peas, jiggery, fish and animal foods like egg, liver, meat and green leafy vegetables, like cauli flower, drumstick leaves and water melon and dried fruits.

Food sources that helps in absorption of Iron

Food supplies that is rich in Vitamin C helps in the absorption.

Sources of vitamin C

Citrus fruits and green leafy vegetables (drum stick leaves, coriander leaves, and cabbage, Gooseberry, guava, orange, pineapple, lime juice, ripe mango, papaya, and tomato are the good sources.

Inhibitors of iron absorption

Coffee, tea, meat, fish, poultry, milk, eggs.

Causes of Anemia

The most important cause of anemia are the nutritional deficiencies of iron in food and Hookworm infestation. The other causes are delayed weaning in infants, use of cow's milk before one year and poor intake of Vitamin C.

Hook worm Infestation:

Hook worm infestation is one of the main cause for Iron Deficiency anemia. In India, about 81% of children less than 5 years are suffering from Hookworm infestation.

Causes of Hook Worm Infestation.

- Lack of hand hygiene
- Walking without foot wares
- Unhygienic fecal habits
- Typical hand mouth activity

Clinical features

The most important clinical manifestation of Hookworm infestation is severe itching over the perianal area, especially during night time.

Prevention of Hookworm infestation

- Always wash hands and finger nails with soap and water before eating and handling food and after toileting.
- Avoid placing fingers in mouth and biting nails
- Discourage children from scratching bare anal area
- Wash all raw fruits and vegetables or any food that fallen on the floor or ground
- Teach children to defecate only in a toilet not on the ground
- Wear foot wear outside
- Keep dogs and cats away from play grounds.
- Disinfect toilet seats and diaper changing areas, Use dilute household bleach

Nutritional Deficiencies:

Anemia can also occur due to nutritional deficiencies. Deficiency of iron in the food leads to Iron deficiency Anemia.

Nutritional causes

- Delayed weaning
- Use of cow's milk before one year
- Diet low in iron rich food
- Poor intake of Vitamin C

PREVENTIVE MEASURES

a)Weaning

Weaning should be started after six months, because a baby can store Iron up to 4-6 months; afterwards there is deficiency of Iron Storage; so we have to give as supplement. Weaning is the period during which the baby gets accustomed to food other than its mother's milk. This period extends from 6^{th} months. It should be

supplement by suitable foods rich in protein and other nutrients .These are called Supplementary feeding. These are usually cow's milk, fruit juice, soft cooked rice, dhal, and vegetables.

During the period of 3-4 months, the baby may weigh as much as 5-5.5 kg and as such, its demand is more. The breast milk cannot supply the necessary baby's need and as such additional foods are required. At the age of one year the child should receive solid foods consisting of cereals, pulses, vegetables, and fruits. These also prevent the baby from becoming anemic.

Avoid bottle feeding. They are often dirty and germs easily grow in them. Fluids tends to be left in them and soon become spoiled/sour .The child may drink the spoiled fluid and become ill. Also sucking on a bottle may interfere with the child desire to breast feed.

b) Avoid cow's milk before one year

The iron content of milk is low in all mammalian species. Iron content of breast milk averages less than 0.2 mg/dl, and it is well utilized. Milk products usually inhibit the iron absorption.

C) Inclusion of more iron rich content

Rich sources of iron: Liver, meat, poultry and Fish

Good sources of Iron: Cereals, green leafy vegetables legumes, nuts, oil seeds, jiggery, and dried fruits.

D) Intake of vitamin c rich food items

Vitamin C helps in the absorption of iron

Anemia can be easily identified by palmer pallor (According to IMNCI guidelines) to see, if the child has palmer pallor, look at the skin of the child's palm. Hold the child's palm open by grasping it gently from the side. Do not stretch the finger backwards. This may cause pallor by blocking the blood supply.

Children with severe anemia should take iron supplement for at least 14 days as per order of physician.

Identification of anemia is mainly by hemoglobin estimation .The normal hemoglobin level of children from 6 months to 5 years is 11mg/dl. The daily dietary requirements of iron in children from 1-3 years are 12 mg/dl and from 4-5 years is 18mg/elfchild with very severe anemic need urgent referral to a hospital for blood transfusion

DIARRHOEA

Introduction

Diarrhea is common in children especially in those between 6months &2years of age .exclusive breastfeeding up to six months protects children against diarrhea. It is often seen in those who are not on breastfeeding &more so if they are bottle-fed. Most diarrheas which dehydration are loose or watery .If an episode of diarrhea last less than 14 days, it is acute diarrhea acute watery diarrhea causes dehydration and contributes to Malnutrition .If a diarrhea lasts 14 days or more it is persistent diarrhea. Diarrhea with blood in the stool with or without mucus is called dysentery.

According to IMNCI guidelines most of children with diarrhea can be managed at home level.

Definition : Diarrhea is an watery stools more than three times per day.

Causes:

- Lack of clean water
- Crowding
- Poor hygiene
- Nutritional deficiency
- Poor sanitation
- Bacterial or parasitic pathogens
- Spread by the fecal- oral route through contaminated food or water
- Rota virus
- Introduction of new foods
- Over feeding

Assessment and classification of dehydration

CLASSIFICATION	SIGNS&SYMPTOMS	TREATMENT
Severe dehydration	• Lethargy/Unconsciousness • Sunken eyes • Unable to drink or drinks poorly • Skin pinch goes back very slowly (>2 seconds)	Hospital Management • ORS solution
Some dehydration	• Restlessness, Irritability • Sunken eyes • Skin pinch goes back slowly • Drinks eagerly	• Follow up in five days if not improves
No dehydration	• Not enough signs to classify as some or severe dehydration	• Give fluids, Zinc supplements and advice to continue ORS at home • Follow up

Prepare ORS solution at home

1000 ml of water is taken, boiled and cooled and add 6 teaspoon of sugar and ½ teaspoon of salt. Nowadays ORS package are sold in local stores. Those packages are bought and then ORS package is mixed in 1000 ml of boiled and cooled water. It is stored in a separate container and used whenever necessary.

How to give ORS solution

- Give frequent small sips from a cup
- If the child vomits, wait 10 minutes. Then continue ,but more slowly
- Continue breast feeding but stop other feeding

Treat the Diarrhea at home

a) Give extra fluid:

If the child is exclusively breastfeed:

- Breastfeed frequently and for longer at each feed. If passing frequent watery stools
- For less than 6 months age give ORS & clean water in addition to breast milk

If the child is not exclusively breastfed:

Give one or more of the home fluids:

- ORS solution
- Lemon drink
- Rice or pluses based drink
- Vegetable soup
- Green coconut water
- Plain clean water
- Yoghurt drink

Show the mother how much fluid to give in addition to the usual fluid intake:

Up to 2years- 50-100 ml after each loose stools

2years or more-100-200ml after each loose stools

b) Give zinc supplements:

- 2 months up to 6 months-10mg per day for 14 days.
- 6 months and more – 20 mg per day for 14 days.
- Remind the mother to give the zinc supplement for the full 10-14 days

c) Continue feeding:

- Up to 6 months: Encourage exclusive breastfeeding. Help the mothers who are not breastfeeding exclusively to do so.

Child is not breastfeeding give a breast milk substitute that is low in lactose such as yoghurt or lactose free commercial formula. Use a spoon or cup: do not use a bottle feeding. Once the child improves, help the child to re-establish lactation.

- 6 Months or older: Feeding should be restarted as soon as the child can eat. Reduced lactose diet should be given 6 times a day to achieve a total intake of at least 110 calories/kg/day

d) When to return:

Follow up in five days if no improvement in child condition

MALNUTRITION

Introduction

Malnutrition continues to be a major health & nutritional problem in the world today, particularly in children under 5years of age. In many developing &underdeveloped nations, diarrhea is a major factor in malnutrition.

Definition

Deficiency of protein & calories.

Causes

- Lack of food
- Bottle- feeding
- Parental illiteracy
- Inadequate knowledge of proper child care practices
- Infections especially diarrhea
- ARI, worm infestation

Types of Protein Energy Malnutrition

- Kwashiorkor
- Marasmus
- Marasmic-Kwashiorkor

Kwashiorkor

Deficiency of protein with an inadequate supply of calories but protein lack is more.

Functions of protein:

- Tissue growth
- Cell repair
- Help in the formation of digestive juices, enzymes, plasma proteins,HB

Signs/Symptoms

- Hair is thin, dry, coarse, and dull
- Marked growth retardation
- Edema
- Depigmentation
- Patchy alopecia(Hair Loss)
- Behavior chances(irritable, lethargic, apathy)

Marasmus

Marasmus results from general malnutrition of both calories and protein It is a common occurrence in underdeveloped countries during time of drought, especially cultures where adults eat first; the remaining food is often insufficient in quality &quantity for the children.

Sings/Symptoms

- Marked growth retardation.
- Gross wasting of muscle &subcutaneous tissue.
- Skin looks dry, scaly with prominent loose folds.
- Old man appearance- due to loss of buccal pad of fat.
- Physical &emotional deprivation

Marasmic –kwashiorkor

Clinical findings of both kwashiorkor and marasmus. The child suffers from inadequate nutrient intake &superimposed infection the child has edema, severe wasting, stunted growth

Management

- Provide protein, carbohydrates, vitamins, and minerals adequate quantity and quality.
- Less expensive locally available foods;
- PEM occurs in diarrhea-
    - ORS solution replace electrolytes
    - Provision of adequate nutrition

Preventive Measures

- Improvement of health of pre-pregnant stage, pregnant mother and lactating women towards healthy mother for health child.
- Promotion of exclusive breastfeeding up to 4-6 months of age .promote child health and nutritional status.
- Appropriate Weaning practices.
- Improvement of family dietary habit with locally available, low cost available foods.
- Counseling to promote correct feeding practices, food habites, food hygiene, safe water, environmental sanitation &eliminate misconceptions regarding food and feedings.
- Improvement of home economics, earnings, income generating activities, adequate dietary budget and diet planning.
- Birth spacing and regulating family size.
- Promotional of educational status especially women

Specific protection:

- Provision of balanced diet with adequate proteins& energy for all children according to the age.
- Immunization against vaccine preventable disease.
- Promotion of hygienic practices.

Early diagnosis& treatment

- Detection of growth lag and growth failure.
- Early diagnosis and management of infection (ARI, Diarrhea).
- Periodic health check up of all children for health supervision and of growth chart

IMMUNIZATION

Introduction

One of the most dramatic advances in pediatrics has been decline of infectious disease during the twentieth century because of the widespread use of immunization for preventable diseases. Although many of the immunizations can be given to individuals of any age, the recommended primary schedule begins during infancy &with exception of boosters, is completed during early childhood.

Immunization is a process of protecting an individual from a disease through introduction of live or killed or attenuated, organism in the individual system.

Age	Vaccine	Dose	Route	Amount
At Birth	BCG OPV	Single Zero dose	Single Zero dose	0.o5ml 2dr0ps
6th week	DPT-1 OPV-1 Hepatitis B-1	1St 1St 1St	Intramuscular Oral Intramuscular	0.5ml 2drops 0.5ml
10th week	DPT-2 OPV-2 Hepatitis B-2	2nd 2nd 2nd	Intramuscular Oral Intramuscular	0.5ml 2drops 0.5ml
14th week	DPT-3 OPV-3 Hepatitis B-3	3rd 3rd 3rd	Intramuscular Oral Intramuscular	0.5ml 2drops 0.5ml
9 months	Measles	Single	Subcutaneous	0.5ml
16-24months	DPT OPV	Booster Booster	Intramuscular Oral	0.5ml 2drops
5 years	DT	single	Intramuscular	0.5ml

POLIO VACCINATION

OPV is administered with ‘zero‘ dose at birth in institutional deliveries and then three doses at one month interval from six weeks of age (6 weeks, 10 weeks, 14 weeks). OPV is given with DTP and Hepatitis B. Because most polio cases occurs between six months to three years. One booster dose is recommended at 16 to 24 months of age.

Contraindication of OPV vaccine

- Acute infectious disease
- Fever
- Diarrhea
- Leukemia’s
- Malignancy
- Corticosteroid therapy

OPV is given regardless to previous immunization during low transmission session of polio i.e. November to February. The first day of NIDS/SNIDS were booth based while on second and third days house to house search was made for missed children to vaccinate them to accomplish 100% immunization of eligible children.

DTP (DIPTHERIA, TETANUS, PERTUSIS) VACCINATION:

DTP is combined vaccine administer for the protection against three disease, i.e.

DIPTHERIA, TETANUS, PERTUSIS.

Booster dose is given at 16-24 months of age followed by another booster dose of DT vaccine at the age of 5-6 years without Pertusis component.

Contra Indication

- Progressive Neurological problems
- Severe reactions of first dose DTP (i.e. shock like state ,temperature above 40^0c, persistent crying episodes , convulsion)

Complications

- Encephalitis
- Encephalopathy
- Infantile spasm
- Rey's Syndrome

MEASLES VACCINATION:

Measles vaccine is live attenuated and tissue culture vaccine, available as freeze dried product. It is safe and effective.

After vaccination, reactions may develop as fever and rash on 5-10 days after immunization and induces a mild measles illness but in reduced frequency and severity. Antipyretics for fever can be given.

Toxic Shock Syndrome (TSS) may develop with contaminated vaccine or if same vial is used for more than one session on the same day or next day.

The features of TSS are

- Severe watery diarrhea
- Vomiting
- High fever –cause death within 48 hours

Contra Indication

- Below 6 months of age
- Acute illness
- Convulsions
- Allergy
- Active Tuberculosis
- Malnutrition
- Immunodeficiency States
- Immuno - Suppressive Therapy(Steroids, Antimetabolites)

Measles vaccine can be combined and effectively administered with other live vaccine such as Mumps and Rubella.(MMR vaccine can be given at the age of 15 months).

OPTIONAL VACCINE

- Typhoid vaccine
- Rota vaccine
- Pneumococcal vaccine
- Hepatitis A vaccine
- Cholera vaccine

CONCLUSION

IMNCI is one of the emerging approach in prevention of child hood illness, meets the needs of curative care, meet the nutritional needs, Immunization, and other important elements of disease, and also in Preventive and Promotive aspects of Health.

வருமுன் காப்பதே சிறந்தது

முன்னுரை :-

கடந்த மூன்று நூற்றாண்டு காலமாக இறப்பு விகிதம் அதிகரித்துள்ளது. அதிலும் முக்கியமாக ஐந்து வயதிற்க்கு கீழுள்ள குழந்தைகள் ஒவ்வொரு வருடமும் 10மில்லியன் குழந்தைகள் இறக்கின்றனர். 10-ல் 7குழந்தைகள் அவர்களுடைய ஐந்தாவது பிறந்தநாளை அடைவதற்கு முன்னாள் இறப்பதற்கு முக்கியமான காரணம் நிமோனியா காய்ச்சல், வயிற்றுப்போக்கு, தட்டம்மை, மலேரியா, புரத - கலோரி குறைபாடு, ஒரு சில சமயம் இரண்டு நோய்கள் சேர்ந்தும் வரலாம். வளரும் இளம்சிசு மற்றும் குழந்தைகளின் நோய்களுக்கான ஒருங்கிணைந்த முறை வருவதற்கு முக்கியமான காரணம் ஊட்டச்சத்து, தடுப்பூசி, நோய்த்தடுப்பு மற்றும் நல மேம்பாடு.

காரணம் :-

குழந்தைகளின் உயிரைக் காப்பாற்றும் ஒன்று நோய் தடுப்பு மற்றும் மருத்துவம் என ஏற்கனவே நிரூபணம் செய்யப்பட்டுள்ளது. தடுப்பூசி தட்டம்மையின் இறப்பு விகிதத்தை குறைத்துள்ளது. சர்க்கரை, உப்புகரைசல் கலந்த கலவை வயிற்றுப்போக்கிற்கான இறப்பு விகிதத்தைக் குறைத்துள்ளது. நோய் எதிர்ப்பு தடுப்பு மருந்து நிமோனியாக் காய்ச்சலின் இறப்பு விகிதத்தை குறைத்துள்ளது. நோயுற்ற குழந்தைகளைக் கையாளவும், நல்ல நிலையை அடையவும், நோய்களுக்கான ஒருங்கிணைந்த முறை உதவி செய்கின்றன. 1998ல் WHO & UNICEF, வேறுசில நலச்சங்கங்கள் நிறுவனங்கள் சேர்ந்து ஆரம்பித்தது தான் குழந்தைகளின் நோய்களுக்கான ஒருங்கிணைந்த முறை. இத்துடன் இளம் சிசுவையும் சேர்த்து இளம்சிசு மற்றும் குழந்தைகளின் நோய்களுக்கான ஒருங்கிணைந்த முறை கொண்டுவரப்பட்டது.

ஐ.எம்.என்.சி.யின் பயன்கள் :-

- குழந்தைகளின் இறப்புவிகிதம், நோயின் கால அளவு, மற்றும் தீவிர தன்மையை குறைக்கின்றன.
- குழந்தைகளின் வளர்ச்சி மற்றும் முன்னேற்றத்திற்கு உதவி செய்கின்றன.

ஐ.எம்.என்.சி.யின் முக்கிய உட்பகுதி :-

- குடும்ப நபர்களை நலப்பயிற்சியில் உட்படுத்துதல்
- குடும்ப முன்னேற்றம் மற்றும் சமூக உடல் நல மேம்பாடு பயிற்சிகள்.

கொள்கைகள் :-

ஐ.எம்.என.சி.யில் இரண்டு பிரிவுகள் உள்ளன.

- 0 - 2 மாதத்திற்குள்ள நோயுற்ற குழந்தைகள்.
- 2 மாதம் - 5 வயதிற்குள்ள நோயுற்ற குழந்தைகள. ஐந்து வயதிற்குக் கீழுள்ள குழந்தைகள் கண்டிப்பாக சோதனை செய்யப்பட்டு நோயுற்ற குழந்தைகளை உடனே மருத்துவமனைக்கோ, பரிந்துரையோ அல்லது அனுமதிக்கப்பட வேண்டும்.
- பெரும்பான்மையான அறிகுறிகள் (இருமல், மூச்சுத்திணறல், காய்ச்சல், இரத்தசோகை) தினமும் சோதனை செய்யப்பட வேண்டும்.
- குறிப்பிட்ட மருந்துகளுக்கு மட்டும்தான் ஐ.எம்.என்.சி.யின் செயல்முறைகள் உதவியாக இருக்கின்றன. குழந்தை நலம் பேணுபவர்கள் (பெற்றோர்கள்) குழந்தையின் நலத்தில் உற்சாகமாக பங்கு பெற வேண்டும்.

நிமோனியா காய்ச்சல் :-

சுவாசக்குழாய் தொற்று நோய்கள் மூக்கு, தொண்டை, குரல்வலை, நுரையீரல் எதில் வேண்டுமானாலும் ஏற்படலாம். குழந்தைக்கு இருமல் மற்றும் மூச்சுத்திணறல் இருந்தால் நிமோனியா அல்லது வேறு ஏதாவது சுவாசக்குழாய் தொற்றுநோயாக இருக்கலாம். நிமோனியா என்பது நுரையீரலில் ஏற்படும் பாதிப்பு. வைரஸ் மற்றும் பாக்டீரியா நிமோனியாக் காய்ச்சலை உண்டுபண்ணுகிறது. வளரும் நாட்டில் அடிக்கடி நிமோனியாக் காய்ச்சலை உண்டுபண்ணுவது பாக்டீரியாதான்.

நிமோனியா காய்ச்சலின் வகைகள் :-

அதிகமான தாக்கமடைந்த நிமோனியா :-

வாந்தி, சோர்வு, வலிப்பு, தாய்ப்பால் எடுக்க முடியாமல் அல்லது எதையும் குடிக்க இயலாமல் இருத்தல். நெஞ்சு உள்வாங்குதல் இதில் ஏதேனும் ஒரு ஆபத்தான அறிகுறி இருந்தால் அதிகமான தாக்கமடைந்த நிமோனியா.

நிமோனியா : அதிகமான சுவாசத் துடிப்பு

நிமோனியா காய்ச்சல் கிடையாது :-

எந்தவிதமான நிமோனியா மற்றும் அதிகமான தாக்கம் நிமோனியாவிற்கான அறிகுறி இல்லை.

குழந்தையின் வயது	**சுவாசத் துடிப்பு**
2 மாதத்திலிருந்து - 12 மாதம் வரை	50 அல்லது அதிகமாக
12 மாதத்திலிருந்து - 5 வயது வரை	40 அல்லது அதிகமாக

குழந்தைகளுக்கு நிமோனியாக் காய்ச்சல் உள்ளதை தாய்மார்கள் பொதுவாக இரண்டு அறிகுறிகளை வைத்து கண்டுபிடிக்கலாம்.

- நெஞ்சு உள்வாங்குதல்
- அதிகமான சுவாசத் துடிப்பு

நெஞ்சு உள்வாங்குதல் என்பது சுவாசிக்கும் போது நெஞ்சில் உள்ள பாகங்கள் உள்வாங்குதல் .

குழந்தை அமைதியாக உள்ளபொது உங்களுடைய காதுகளை குழந்தையில் வாயில் வைக்கவும் கரகர சத்தம் (Harsh Voice) கேட்டும். குழந்தைக்கு இருமல் மற்றும் மூச்சுத்திணறல் நான்கு அல்லது ஐந்து நாட்களுக்கு மேல் இருந்தால் உடனே மருத்துவரை அணுகவும். மருத்துவர் நோய் எதிர்ப்பு சக்தியுள்ள மருந்து கொடுத்தால் அந்த மருந்து முடியும் வரை கொடுக்கவும். இல்லையெனில் இருமல் திரும்ப ஆரம்பித்துவிடும். குழந்தையின் இருமல் மற்றும் சளி ஒன்று அல்லது இரண்டு வாரத்திற்குள்

குணமடையும். குழந்தைகளுக்கு அதிகமான இருமல் (30 நாட்களுக்கு அதிகமாக இருந்தால் முறையாக சோதிக்கவும்.

இரத்த சோகை :-

இரத்தத்தில் இரும்புச்சத்து அளவு குறைவாக இருந்தால் இரும்புச்சத்து இரத்தத்தில் உருவாவதற்கு இரும்பு மிகவும் முக்கிய பொருளாக கருதப்படுகிறது. ஹீமோகுளோபின் ஆக்ஸிஜன் மற்றும் தேவையான ஊட்டச்சத்தை எடுத்துச் செல்கிறது. ஒவ்வொரு கிராம் ஹீமோகுளோபினிள்ளும் (3.34mg) இரும்பு உள்ளது.

இரும்பின் செயல்பாடுகள் :-

- ஹீமோகுளோபின் உருவாதல்
- மூளையின் வளர்ச்சி மற்றும் செயல்பாடு
- உடலின் வெப்பநிலையைக் கட்டுப்படுத்துதல்
- தசை செயல்பாடு

இரும்புச்சத்து உள் பொருட்கள் :-

- அனைத்து பருப்பு வகைகள், பயறுவகைகள், வெல்லம், மீன், முட்டை, கல்லீரல், மட்டன், இறைச்சி மற்றும் பச்சைக் காய்கறிகள், காலிபிளவர், முருங்கைகீரை, தர்பூசணி மற்றும் காய்ந்த பழங்கள் (உலர்ந்த திராட்சை).
- எடுத்துக்கொள்ளும் இரும்புச்சத்துள்ள பொருட்களை உடலில் உறிஞ்சிக்கொள்வதற்கு வைட்டமின் C மிகவும் அத்தியாவசியமாக உள்ளது.

வைட்டமின் C நிறைந்த உணவுப் பொருட்கள் :-

சிட்ரஸ் பழங்கள், பச்சைக்காய்கறிகள், கோவா, ஆரஞ்சு, எலுமிச்சைச் சாறு, முட்டைக்கோஸ், கனிந்த மாம்பழம், பப்பாளி, தக்காளி.

இரும்பு உறுஞ்சுதலை தடைசெய்யும் உணவுப்பொருட்கள் காபி, டீ, மீன், பால்.

இரத்தசோகையின் காரணங்கள் :-

- உணவில் இரும்புச்சத்து குறைவாக இருத்தல்
- புழுக்களினால் ஏற்படும் நோய்கள்
- இணை உணவு தாமதமாக ஆரம்பிப்பதாலும்.
- வைட்டமின் C உள்ள பொருட்கள் குறைவாக எடுப்பதாலும்.
- ஒரு வருடம் ஆவதற்கு முன்னாலே மாட்டுப்பால் கொடுத்தல்.

புழுக்களினால் வரும் நோய்கள் :-

- ❖ சுயசுத்தம் குறைவாக இருத்தல்
- ❖ காலணி இல்லாமல் நடத்தல்
- ❖ கையை வாயில் வைத்தல்
- ❖ சுகாதாரம் இல்லாத மலம் கழிக்கும் பழக்கம்.

அறிகுறிகள் :-

அரிப்பு பொதுவாக இரவு நேரத்தில் அதிகமாக இருக்கும்.

தடுப்பு முறைகள் :-

- ➢ சாப்பிடுவதற்கு முன்னும், மலம்கழித்தபிறகும் சோப்பைப் பயன்படுத்தி கைகளை சுத்தமாகக் கழுவ வேண்டும்.
- ➢ கைகளை வாயில் வைத்தல் மற்றும் நகம் கடிப்பதைத் தவிர்த்தல் வேண்டும்.
- ➢ ஆவன வாய் பகுதியை சொரிவதைத் தடுத்தல்
- ➢ காய்கறிகள் மற்றும் பழங்களைச் சுத்தமாகக் கழுவ வேண்டும்.
- ➢ பொதுவான இடங்களில் மலம் கழித்தல் கூடாது.
- ➢ வெளியேபோகும் போது காலணிகளைப் பயன்படுத்த வேண்டும்.
- ➢ நாய் மற்றும் பூனையை விளையாடும் இடத்திற்கு பக்கத்தில் வைக்கக் கூடாது.
- ➢ பிளிச்சிங் பவுடரைப் பயன்படுத்தி கழிப்பறையை சுத்தம் செய்ய வேண்டும்.

ஊட்டச்சத்து குறைபாடு :-

இரத்தசோகை - ஊட்டச்சத்து குறைபாட்டினால் ஏற்படுகிறது. மேலும் இரத்தத்தில் இரும்புச்சத்து குறைவாக இருத்தல்.

தடுப்பு முறைகள் :-

இணை உணவு :-

6 மாதத்திற்கு பிறகு இணை உணவு ஆரம்பிக்க வேண்டும். ஏனென்றால் 4 - 6 மாதத்தில் இரும்ப சேமித்து வைக்கப்படுகிறது. 6 மாதத்தில் தாய்ப்பால் மற்றும் இணை உணவு சேர்த்து கொடுக்க வேண்டும். 6 மாதத்திற்கு பிறகு குழந்தைகள் புரதச்சத்து மற்றும் வேறு ஊட்டச்சத்துள்ள உணவுப்பொருட்களை உண்ண வேண்டும். பழச்சாறு, சமைத்த சாதம், பருப்பு மற்றும் காய்கறிகள் உண்ண வேண்டும். 3 - 4 மாதத்தில் குழந்தையின் எடை 5-5.5 கிலோ இருக்க வேண்டும். ஒரு வருடத்திற்கு பிறகு பயிறு வகைகள், காய்கறிகள் மற்றும் பழங்கள் கொடுப்பதால் குழந்தைக்கு இரத்தசோகை வராமல் தடுக்கலாம். புட்டிப்பால் கொடுப்பதைத் தவிர்க்க வேண்டும். ஏனெனில் பாக்டீரியா மற்றும் அழுக்கு அதில் அதிகமான வளரும் இது குழந்தைக்கு தாய்ப்பால் பருவத்தில் உள்ள விருப்பத்தைத் தடுக்கும்.

இரத்தசோகை உள்ளதைக் கை வெளிரியிடுப்பதல் மூலம் எளிதாகக் கண்டறியலாம்.

குழந்தைகளுக்கு அதிக இரத்தசோகை இருந்தால் கண்டிப்பாக 14 நாட்களுக்கு இரும்புச் சத்து நிறைந்த உணவுப்பொருட்கள் மற்றும் இணை உணவு மருத்துவரின் அறிவுரைப்படி கொடுக்க வேண்டும். சராசரியாக ஹீமோகுளோபின் அளவு (6 மாதம் - 5 வயது வரை) 11mg/dl. குழந்தைகளுக்குத் தேவையான இரும்பின் அளவு (1 - 3 வயது) 12mg/dl மற்றும் (4-5 வயது) 18mg/dl.

வயிற்றுப் போக்கு

முன்னுரை :-

வயிற்றுப்போக்கு குழந்தைகளுக்கு 6 மாதத்திலிருந்து 2 வயதிற்குள் ஏற்படும் ஒன்று. 6 மாதம் வரை தாய்ப்பால் மட்டும் கொடுப்பதால் வயிற்றுப்போக்கைத் தடுக்கலாம். புட்டிப்பால் கொடுகக்கும் குழந்தைகளுக்கு வயிற்றுப்போக்கு அதிகமாக இருக்கும்.

இரத்தத்துடன் கூடிய மலம் இருந்தால் வயிற்றுக்கடுபபு என அழைக்கப்படுகிறது.

வரையறு :-

வயிற்றுப் போக்கு என்பது ஒரு நாளைக்கு மூன்று வேளைக்கு மேல் தண்ணீருடன் கூடிய மலம் இருப்பதாகும்.

காரணங்கள் :-

- சத்தமில்லாத தண்ணீர்
- கூட்டம்
- சுயசுத்தக் குறைவு
- ஊட்டச்சத்துக் குறைபாடு
- சுகாதாரமின்மை
- பாக்டீரியா அல்லது (ஒட்டுண்ணி)
- ரோட்டா வைரஸ்
- புதுவிதமான உணவை அறிமுகப்படுத்துதல்
- அளவுக்கு அதிகமாக உணவூட்டுதல்

நீரிழப்பின் வகைப்பாடு :-

அதிக நீரிழ்பபு	➢மயக்கமடைதல் ➢சுருங்கிய கண் ➢நீர் குடிக்க இயலாமை ➢தோலின் நிலை மிக மெதுவாக அதன் நிலையை அடைதல்	மருத்துவமனையில் அனுமதித்து சிகிச்சை பெற வேண்டும்.

கொஞ்ச நீரிழப்பு	➢ தூக்கமின்மை, எரிச்சல் ➢ சுருங்கிய கண் ➢ தோலின் நிலை மெதுவாக அதன் நிலையை அடைதல்	சக்கரை, உப்புக்கரைசல் கலந்த கலவை ஐந்து நாட்களுக்கு எந்த முன்னெற்றமும் இல்லையெனில் மருத்துவரை அனுகவும்.
நீரிழப்பு இல்லை	அதிக நீரிழப்பு மற்றும் கொஞ்ச நிரிழப்பும் இல்லாமல் இருப்பது.	அதிகமாக நீர் கொடுத்தல், துத்தநாக ORS கலவை

சர்க்கரை உப்புக்கரைசல் தயாரித்தல் :-

1000ml(1l) தண்ணீர் எடுத்து நன்கு காய்ச்சி ஆரவைத்து 8 டீஸ்பூன் சர்க்கரை மற்றும் 1 டீஸ்பூன் உப்பு எடுத்து நன்றாகக் கலக்க வேண்டும். தற்பொழுது சர்க்கரை உப்புக்கரைசல் பாக்கெட் கடைகளில் விற்பனையாகிறது. அதை வாங்கி 1000ml (1l) தண்ணீர் எடுத்து காய்ச்சி, ஆர வைத்து அதில் சர்க்கரை உப்பு கரைசல் பாக்கெட்டைக் கலக்க வேண்டும். தனியாக ஒரு பாத்திரதத்தில் வைத்த எப்பொழுது தேவையோ அப்பொழுது பயன்படுத்திக் கொள்ளவும் தயாரித்த சர்க்கரை உப்புக்கரைசலை அந்த ஒரு நாளைக்குள்ளே உபயோகப்படுத்த வேண்டும்.

சர்க்கரை, உப்புநீர் கரைசல் கலவையைக் கொடுக்கம் முறைகள் :-

- ஒரு கப்பில் எடுத்து சிறுசிறு துளிகளாகக் கொடுக்கவும்.
- குழந்தை வாந்தி எடுத்தால் 10 நிமிடம் காத்திருந்து அதன்பிறகு மெதுவாகக் கொடுக்கவும்.
- தாய்ப்பால் மட்டும் கொடுக்க வேண்டும்.

வீட்டில் வயிற்றுப்போக்கை சரிசெய்யும் முறை :- (6 மாதத்திற்குள்)

- அதிகமாக நீர் ஆகாரங்கள் கொடுத்தல்
- தாய்ப்பால் கொடுத்தல்

- தாய்ப்பாலுடன் சேர்த்து சர்க்கரை உப்புக்கரைசல் மற்றும் தூய்மையான தண்ணீர் கொடுக்க வேண்டும்.

6 மாதத்திற்கு மேல் :-

- நீர் ஆதாரங்கள் கொடுக்க வேண்டும்
- சர்க்கரை, உப்புநீர் கரைசல் கலவை
- எலுமிச்சைச்சாறு
- அரிசி கஞ்சி அல்லது பருப்பு சார்ந்த பொருட்கள்
- காய்கறி சூப்
- இளநீர்
- தூய்மையான தண்ணீர்
- கொதிக்க வைத்த தண்ணீர்

2வயதிற்குள் இருந்தால் 50-100மி.லி. ஒவ்வொரு வயிற்றுப்போக்கிற்கு பின்பு
2 வயதிற்கு மேல் - 100 - 200மி.லி ஒவ்வொரு வயிற்றுப்போக்கிற்கு பின்பு

துத்தநாகம்

2 - 6 மாதம் வரை - 10mg ஒரு நாளைக்கு அதாவது 14 நாட்களுக்கு

6 மாதத்திற்கு மேல் - 20mg ஒரு நாளைக்கு அதாவது 14 நாட்களுக்கு கண்டிப்பாக சத்தான இணைவூணவு எடுக்க வேண்டும்.

தொடர்ச்சியாக தாய்ப்பால்

கண்டிப்பாக 6 மாதம் வரை தாய்ப்பால் கொடுக்க வேண்டும். ஸ்பூன் அல்லது கப்பை உபயோகப்படுத்தலாம். புட்டிப்பாலைத் தவிர்க்க வேண்டும்.

எப்பொழுது மருத்துவமனைக்கு திரும்ப வர வேண்டும் :-

ஐந்து நாளைக்குள் குழந்தையின் உடல்நலத்தில் எந்த மன்னேற்றமும் இல்லையெனில் திரும்ப மருத்துவமனைக்குச் செல்ல வேண்டும்.

புரத - கலோரி குறைபாடு

ஐந்து வயதிற்குக் கீழ் உள்ள குழந்தைகளுக்குப் புரத கலோரிக் குறைபாடு மிகப்பெரிய நல மற்றும் உணவு பிரச்சனையாக உள்ளது. வளர்ந்து வரும் நாடுகளில் வயிற்றுப்போக்கு, புரதக் - கலோரி குறைபாட்டில் ஒரு முக்கியப் பங்கு வகிக்கிறது.

காரணங்கள் :-

- போதிய அளவு உணவு இல்லாமல்
- புட்டிப்பால்
- பெற்றோர்களின் படிப்பறிவின்மை
- குழந்தையை வளர்ப்பதற்குத் தேவையான போதிய அறிவு இல்லாமல்
- தொற்றுநோய் பொதுவாக வயிற்றுப்போக்கு
- புழுக்களினால் வரும் நோய், சுவாசக்குழாய் நோய்கள்.

வகைகள் :-

- சவலை நோய்
- நோஞ்சான் நோய்
- சவலை மற்றும் நோஞ்சான் நோய்

வசலை நோய் :-

அதிக அளவு புரதச்சத்து குறைவாகவும், கலோரி குறைவாக இருப்பதாலும் சவலைநோய் ஏற்படுகிறது.

புரதத்தின் செயல்பாடுகள் :-

- செல்களின் வளர்ச்சி
- நொதிகள், பிளாஸ்மா உருவாவதற்கு முக்கியத்துவம் வகிக்கிறது.

அறிகுறிகள் :-

- காய்ந்த, மெல்லிய தலைமுடி
- எடை குறைதல்
- வளர்ச்சி குறைபாடு
- வீக்கம்
- தலைமுடி உதிர்தல்
- பழக்கத்தில் மாற்றங்கள்

நோஞ்சான் நோய் :-

புரத மற்றும் கலோரிக் குறைபாட்டினால் நோஞ்சான் நோய் ஏற்படுகிறது.

அறிகுறிகள் :-

- வளர்ச்சி குறைபாடு
- உலர்ந்த தோல்
- முதியவர் தோற்றம்
- உடல் மற்றும் மனரீதியான மாற்றங்கள்

சவலை மற்றும் நோஞ்சான் நோய் :-

சவலை மற்றும் நோஞ்சான் நோயின் அறிகுறிகள் கலந்து இருத்தல்.

பராமரிப்பு முறைகள் :-

- புரோட்டின் (புரதம்), கார்போஹைட்ரேட், வைட்டமின், தாதுஉப்புகள் நிறைந்த பொருட்களைக் கொடுக்க வேண்டும்.
- விலை குறைவாக, எளிதில் கிடைக்கக்கூடிய பொருட்களை உபயோகப்படுத்த வேண்டும்.
- புரத - கலோரிக் குறைபாடு வயிற்றுப்போக்கினால் ஏற்பட்டால் ORS கரைசல்
- சரியான ஊட்டச்சத்து எடுத்தல்

தடுப்பு முறைகள் :-

- உடல்நலத்தை கர்ப்பகாலத்திற்கு முன்பும், கர்ப்பகாலத்தின் போதும் கர்ப்பகாலத்திற்குப் பின்பும் மேம்படுத்தி தாய், சேயின் நலத்தைப் பாதுகாத்தல்.
- 4 - 6 மாதம் வரை தாய்ப்பால் மட்டுமே கொடுக்க வேண்டும்.
- இணை உணவை சரியான நேரத்தில் அறிமுகப்படுத்துதல்
- குடும்ப நபர்களை மிக எளிதாக மிகக் குறைவான செலவில் கிடைக்கக்கூடிய உணவுப் பொருட்களை வாங்குவதற்கு ஊக்குவித்தல் வேண்டும்.
- உணவூட்டும் முறைகள், உணவுப் பழக்கவழக்கங்கள், சுத்தமான உணவு, சுத்தமான நீர், புற சுத்தத்தைப் பற்றி தாய்மார்களுக்கு அறிவுரை கூறுதல் வேண்டும்.
- குடும்பப் பொருளாதாரம், சம்பாதித்தல், போதுமான உணவுப் பட்டியல்.
- பிறப்பு இடைவெளி மற்றும் சிறு குடும்ப அளவு
- பெண்களின் கல்வித்தரத்தை மேம்படுத்துதல்.
- சரிவிகித உணவு (எந்தந்த வயதிற்கேற்ப தேவையான அளவு புரதம் மற்றும் கலோரி
- சுய சுத்தத்தை மேம்படுத்துதல்

ஆரம்பகால அறிகுறிகள் / சிகிச்சை :-

- ஆரம்பகாலத்தில் வளர்ச்சிக் குறைபாட்டைக் கண்டறிதல்
- சுவாசக்குழாய் நோய், வயிற்றுப்போக்கை ஆரம்பகாலத்தில் கண்டறிந்து குணப்படுத்துதல்
- குழந்தையின் வருகை வருகை

தடுப்பூசி

தடுப்பூசி என்பது தனிமனிதனை நோயிலிருந்து பாதுகாத்தல்.

உயிருள்ள மற்றும் கொல்லப்பட்ட தடுப்பூசியிலிருந்து தொற்றுநோய்களுக்கு எதிரான எதிர்ப்புத்திறனை தருகிறது. தடுப்பூசி

பொதுவாக (சமூக உடல்நல மையம்) மிகக்குறைவான செலவில் கிடைக்ககூடிய ஒன்று.

போலியோ சொட்டு மருந்து :-

போலியோ சொட்டு மருந்து பிறந்ததிலிருந்து ஐந்து வருடம் வரை கொடுக்கப்படுகிறது. மூன்று சொட்டு ஒரு மாத இடைவெளியில் (6 வாரம், 10வாரம், 14வாரம்) போடப்படுகிறது. போலியோ சொட்டுமருந்து, முத்தடுப்பூசி மற்றும் மஞ்சள் காமலையுடன் சேர்த்து கொடுக்கப்படுகிறது.

போலியோ சொட்டுமருந்து யார்யாருக்கொல்லாம் கொடுக்க கூடாது?

1. காய்ச்சல்
2. வயிற்றுப்போக்கு

நவம்பர் - பிப்ரவரி போலியோ சொட்டுமருந்து கொடுக்கப்படுகிறது. முதல் நாள் (பூத் ல் போடப்படுகிறது. 2 மற்றும் 3வது நாள் வீடு வீடாக சென்று போலியோ சொட்டுமருந்து போடாத குழந்தைகளுக்கு போடப்படுகிறது. DTP முத்தடுப்பூசி மூன்று நோய்களுக்கு எதிராக கொடுக்கப்படுகிறது. கக்குவான் இருமல்.

யார்யாருக்கொல்லாம் கொடுக்கக்கூடாது?

நரம்பு, மூளை சம்மந்தப்பட்ட பிரச்சனைகள்.

தட்டம்மை

தட்டம்மை தடுப்பூசி 9 மாதத்தின் முடிவில் தட்டம்மை தடுப்பூசி கொடுக்கப்படுகிறது.

- வயிற்றுப்போக்கு
- வாந்தி
- காய்ச்சல் - 48மணி நேரத்தில் இறப்பு ஏற்படுகிறது.

யார்யாருக்கொல்லாம் கொடுக்கக்கூடாது?

- 6 மாதத்திற்கு கீழுள்ள குழந்தைகள்
- வலிப்பு
- அலர்ஜி, ஒவ்வாமை
- காசநோய்
- புரதக்கலோரி குறைபாடு
- எரிர்ப்பு சக்தி குறைவு
- 15 மாதத்தில் MMR கொடுக்கப்படுகிறது.

மஞ்சள் காமாலை தடுப்பூசி :-

6வது, 10வது, 14வாரத்தில் போலியோ மற்றும் முத்தடுப்பூசியுடன் சேர்த்து போடப்படுகிறது.

தேவைப்பட்டால் போடப்படும் தடுப்பூசி :-

டைப்பாய், வயிற்றுப்போக்கு, காலரா மற்றும் சில

ANNEXURE-D

Letter requesting opinion and suggestion of experts for content validity of the research tool

From

N.sathya,
II year M.Sc(N),
Sara Nursing College,
Dharapuram.

To

Respected Sir / Madam

Subject: Letter requesting opinion and suggestions from experts for establishing content validity of the tool.

I am a II Year M.Sc (N) Nursing student in Sara Nursing College. As a partial fulfillment of Masters Degree in nursing, I have selected the topic mentioned below for the research project to be submitted to "The Tamil Nadu Dr.M.G.R. Medical University Chennai".

Topic: "A Study to evaluate the effectiveness of Computer Assisted Instruction on knowledge and knowledge on practice regarding selected aspects of Integrated Management Of Neonatal And Childhood illness (IMNCI guidelines) among mothers of under five children in selected rural area at Tanjore district."

Enclosed here with: 1. Proposal
2. Tool
3. Computer Assisted Instruction

May I request you to kindly validate the following enclosure and give your expert opinion and suggestion for necessary modifications of the tool.

Thanking you in Anticipation

Place: Your's sincerely

Date: N. SATHIYA

ANNEXURE-E

CERTIFICATE OF VALIDATION

This is to Certify that the tool developed by **Ms. N.SATHIYA** II year M.Sc(N) of Sara Nursing College On a Topic "A Study to evaluate the effectiveness of Computer Assisted Instruction on knowledge and knowledge on practice regarding selected aspects of Integrated Management Of Neonatal And Childhood illness (IMNCI guidelines) among mothers of under five children in selected rural area at Tanjore district.". has been validated by the undersigned. The Suggestions and modifications given by me will be incorporated by the investigator in collaboration with their respective guide.

Name: Signature:

Designation:

Date:

ANNEXURE-F

LIST OF EXPERTS

1. **Prof. S. Sumithra, M.Sc (N). (Ph.D).,**
   Principal,
   Karpagavinayaga college of Nursing,
   Pukkottai.

2. **Prof.Kamalam, M.Sc(N).PhD**
   Principal,
   Rabinthranath Tagore College of Nursing,
   Salem

3. **Prof. Vani chitra Devi M.Sc(N).,**
   Vice-Principal,
   Karpagavinayaga college of Nursing
   Pukkottai.

4. **Dr. Arivanand, MBBS,DCH**
   Pediatrician
   Maharisi Nursing Home
   Dharapuram

ANNEXURE-G

CERTIFICATE FOR ENGLISH EDITING

I here by certify that, I have edited the work of Ms. N. SATHIYA, II year M.Sc. (N)., student of Sara Nursing College, Dharapuram who is under dissertation work on "A study to evaluate the effectiveness of Computer Assisted Instruction on knowledge and knowledge on practice regarding selected aspects of IMNCI guidelines among mothers of under five children at selected rural areas in Tanjore District.

Date:

Signature

S. Saminathan selvaraj,
M.A., M.Ed., M.Phil.,
P.G.Assistant (Economics)
St.Xaviers Higher Secondary School
Purathakudy - 621 011,
Trichy (Dt)

CERTIFICATE FOR TAMIL EDITING

I here by certify that, I have edited the work of Ms. N. SATHIYA, II year M.Sc. (N)., student of Sara Nursing College, Dharapuram who is under dissertation work on "A study to evaluate the effectiveness of Computer Assisted Instruction on knowledge and knowledge on practice regarding selected aspects of IMNCI guidelines among mothers of under five children at selected rural areas in Tanjore District.

Name: S.K.SENTHILKUMAR
Designation: LECTURER IN TAMIL
Date : 24.05.2011

S.K.Senthilkumar
Signature :
S.K.SENTHILKUMAR, M.A., M.Phil., M.Ed.,
Lecturer in Tamil
ANNAI FATHIMA
TEACHER TRAINING COLLEGE
DHARAPURAM - 638 673.